First Nations Water Rights in British Columbia

A Historical Summary of the rights of the Alexis Creek First Nation

DOC
BC
W324
D:F57A43
2001
c.3

WATER BC our vital resource
Ministry of Environment, Lands and Parks

LEGISLATIVE LIBRARY
VICTORIA BC V8V 1X4 MAR 13 2001

BRITISH COLUMBIA

LEGISLATIVE LIBRARY OF BRITISH COLUMBIA
3 3298 00250 8324

MINISTRY OF ENVIRONMENT, LANDS and PARKS
WATER MANAGEMENT BRANCH

FIRST NATIONS WATER RIGHTS IN BRITISH COLUMBIA:

A Historical Summary of the rights of the Alexis Creek First Nation

Research and writing by:	Christina Rocha
Edit by:	JOL Consulting
Review by:	Gary W. Robinson
Prepared for publication:	February, 2001

National Library of Canada Cataloguing in Publication Data
Rocha, Christina.
First Nations water rights in British Columbia. A historical summary of the rights of the Alexis Creek First Nation

ISBN 0-7726-4449-7

1. Water rights - British Columbia - Alexis Creek Indian Reserve No. 12. 2. Water rights - British Columbia - Alexis Creek Indian Reserve No. 20. 3. Water rights - British Columbia - Alexis Creek Indian Reserve No. 21. 4. Water rights - British Columbia - Alexis Creek Indian Reserve No. 32. 5. Water rights - British Columbia - Charley Boy's Meadow Indian Reserve No. 3. 6. Water rights - British Columbia - Redstone Flat Indian Reserve No. 1. 7. Water rights - British Columbia - Toby Helenes Meadow Indian Reserve No. 10. 8. Chilcotin Indians - British Columbia - Chilcotin Lake Region - Government relations. I. Robinson, Gary W. II. JOL Consulting (Firm) III. British Columbia. Water Management Branch. IV. Title. V. Title: Historical summary of the rights of the Alexis Creek First Nation.

KEB529.5.W3R658 2001 346.71104'32 C2001-960012-7
KF8210.W38R658 2001

TABLE OF CONTENTS

LOCATION 1

WATER ALLOCATIONS 2

HISTORY, CURRENT STATUS, AND NOTES 3

Billy Creek
- History 3
- Current Status 4
- Notes 4

Charleyboy Marsh
- History 4
- Current Status 4
- Notes 5

Chilanko River and Puntzi Lake
- History 5
- Current Status 6
- Notes 7

Guichon Creek
- History 7
- Current Status 7
- Notes 7

Jorgensen Creek and unnamed creek, springs, and pond
- History 8
- Current Status 8
- Notes 9

Puntzi Creek
- History 9
- Current Status 11
- Notes 11

Timothy Creek
- History 12
- Current Status 12
- Notes 12

OTHER INFORMATION..... 12

APPENDICES

TAB NO.:

1. TABLE: Summary of Water Rights Record for the Alexis Creek First Nation

2. LICENCES AND PLATS
   Conditional Water Licences 20643, 26813, 101480, 101481, 101482, 101494, 107970, and 107973.

3. PERMIT OVER CROWN LANDS
   P.C.L. No.'s 21254, 21301 and 21944.

4. STREAM REGISTER REPORTS
   Billy Creek, Charleyboy Marsh, Chilanko River, Guichon Creek, Jorgensen Creek, Puntzi Lake, Timothy Creek

5. WATER SURVEY OF CANADA RECORDS
   Chilanko River and Puntzi Creek

6. MAP: Alexis Creek Band
   i. 1:250,000 map showing all the Alexis Creek Band reserves.
   ii. five 1:50,000 maps showing all of the Alexis Creek Band reserves.

FIRST NATIONS WATER RIGHTS REPORT

BAND:	Alexis Creek Band		
ADDRESS:	P.O. Box 69, Chilanko Forks, B.C., V0L 1H0		
CHIEF:	Chief Irvine Charleyboy		
PHONE:	481-3335	**FAX:**	481-1197
AFFILIATION:	Tsilhqot'in Tribal Council		

LOCATION:

The Alexis Creek First Nation occupies 37 reserves in an area located west of the town of Williams Lake. The reserves range in size from 0.1 hectare to 453.2 hectares and occupy a total land area of 3,993.3 hectares. The reserves are:

Agats Meadow 8	Alexis Creek 6	Alexis Creek 12
Alexis Creek 13	Alexis Creek 14	Alexis Creek 15
Alexis Creek 16	Alexis Creek 17	Alexis Creek 18
Alexis Creek 20	Alexis Creek 21	Alexis Creek 22
Alexis Creek 23	Alexis Creek 24	Alexis Creek 25
Alexis Creek 26	Alexis Creek 27	Alexis Creek 28
Alexis Creek 29	Alexis Creek 30	Alexis Creek 31
Alexis Creek 32	Alexis Creek 33	Alexis Creek 34
Alexis Creek 35	Charley Boy's Meadow 3	
Chezacut Cemetery 5	Freddie Charley Boy 7	Puntzi Lake 2
Redstone Cemetery 1B	Redstone Flat 1	Redstone Flat 1A
Seymour Meadows 19	Toby Helenes Meadow 9	
Toby Helenes Meadow 10	Toby Helenes Meadow 11	
Toby's Meadow 4		

Of the Alexis Creek reserves, water rights have been allocated on Alexis Creek Reserves No.'s 12, 20, 21, and 32, Charley Boy's Meadow 3. Redstone Flat 1, and Toby Helenes Meadows 10.

The most recent population figures compiled by the Ministry of Finance report that the Alexis Creek Band has a total population, including registered and non-registered members, living on- and off-reserves, of 499.

The Alexis Creek reserves occur in the Douglas Fir Biogeoclimatic Zone. This zone is the second warmest forest zone, located in the dry southern interior. The reserves lie at elevations ranging from 2900 to 4100 feet above mean sea level, and experience a climate in which average daily temperatures range from lows of -10 degrees centigrade in January, to highs of less than 16 degrees centigrade in July. Annual rainfall for the area averages less than 30 centimeters.

Water courses of significance include:

- **Billy Creek**: flows east through Alexis Creek Reserve No. 22 and drains into Billy Lake.
- **Charleyboy Marsh**: located within Charley Boy's Meadow Reserve No. 3.
- **Chilanko River**: flows east through Redstone Flat Reserve No. 1.
- **Guichon Creek**: flows southwest through Alexis Creek Reserve No. 34 and then drains into the Chilcotin River.
- **Jorgensen Creek**: flows east through six Alexis Creek reserves and then drains into Chilcotin Lake.
- **Puntzi Lake**: located east of Puntzi Creek.
- **Puntzi Creek**: flows east through four Alexis Creek reserves and then drains into Puntzi Lake.
- **Timothy Creek**: originates in Alexis Creek Reserve No. 32 and flows south until it merges with Palmer Creek.
- **unnamed springs**: located within Alexis Creek Reserve No. 14.
- **unnamed pond**: located within Alexis Creek Reserve No. 20.
- **unnamed creek**: located within Alexis Creek Reserve No. 21.

WATER ALLOCATIONS:

There are no records of allocations made by Order-in-Council of the Lieutenant Governor in Council.

The water rights of the Alexis Creek First Nation have been determined by four actions of government over the years:

1) Allotments by Indian Reserve Commissioners.

Following confederation, the Province and the Dominion established an Indian Reserve Commission to reserve lands for the Indians and to facilitate the transfer of the lands in question to Dominion authority. In setting apart lands for reserves, the Reserve Commissioners made it their practice to allot water in conjunction with the land. This practice was unique among Indian Reserves in Canada and the authority of the Commissioners to allot water rights has been disputed by the Province since.

2) Determinations of the Board of Investigation under the *Water Act, 1914* with respect to claims of the Department of Indian Affairs. In it's rulings the Board often recommended the issue of water licences.

3) The issue of water licences in response to Federal Government applications requesting authorization for the use of water on reserve lands.

4) Actions to amend, cancel or record as abandoned, licenced rights pursuant to provisions contained in the *Water Act*.

HISTORY, CURRENT STATUS AND NOTES:

The history of water rights, the current status of rights, and notes for the Alexis Creek First Nation with respect to Billy Creek, Charleyboy Marsh, Chilanko River, Guichon Creek, Jorgenson Creek, Puntzi Lake, Puntzi Creek, and Timothy Creek are as follows:

Billy Creek:

History:

Oct 12, 1994 In accordance with an application made by the Alexis Creek Band, the Comptroller of Water Rights issued Conditional Water Licence 101480. This licence has a precedence date of May 12, 1983 and authorizes the impoundment of 108 acre feet, from April 1 to July 15, from Billy Creek. The maximum quantity of water which may be used for irrigation purpose is 72 acre feet per annum. The appurtenant lands are defined as District Lots 1437 and 1438, within Alexis Creek Reserve No. 22, Range 3, Coast District.

In connection with Conditional Water Licence 101480, Permit Over Crown Lands 21254 was granted to the Alexis Creek Band. The permit authorizes the occupation of Crown Land for the

construction and maintenance of works required under Conditional Licence 101480.

Current Status:

Conditional Water Licence 101480, for the use and benefit of the Alexis Creek Band, is currently the only licence active on Billy Creek.

The Water Survey of Canada has no record of streamflow for Billy Creek. No alternative sources of current water availability information for the Creek were located during the course of this investigation.

Notes:

1. The District Engineer has recommended that Billy Creek be noted as fully recorded due to its small size.

Charleyboy Marsh:

History:

Jun 15, 1994 In accordance with an application made by the Alexis Creek Band, the Comptroller of Water Rights issued Conditional Water Licence 101494. The licence has a precedence date of May 12, 1983 and authorizes the impoundment of 42 acre feet, from April 1 to July 15, from Charleyboy Marsh. The maximum quantity of water which may be used for irrigation purpose, is 28 acre feet per annum. The appurtenant land is specified as Charleyboy's Meadow Reserve No. 3, District Lot 1424, Range 3, Coast District.

Current Status:

Conditional Water Licence 101494, for the use and benefit of the Alexis Creek Band, is currently the only licence active on Charleyboy Marsh.

The Water Survey of Canada has no records of streamflow for Charleyboy Marsh. No other current sources of water availability data were located during this review

Notes:

1. The allotment of water authorized under Conditional Water Licence 101494 is less than the Alexis Creek Band originally applied for.

2. The District Engineer has recommended that Charleyboy Marsh be noted as fully recorded due to its small size.

Chilanko River & Puntzi Lake:

History:

Dec 31, 1952 — In accordance with an application made by the Director of Indian Affairs on behalf of the Alexis Creek Band, the Comptroller of Water Rights issued Conditional Water Licence 20643. The licence was assigned a precedence date of June 23, 1951 and authorizes the diversion of 1,400 acre feet, from April 1 to September 30, from Puntzi Lake for irrigation purpose. The appurtenant lands are specified as Redstone Flat Reserve No. 1, Redstone, of which 700 acres may be irrigated.

Dec 1, 1961 — In accordance with an application made by the Indian Affairs Branch on behalf of the Alexis Creek Band, the Comptroller of Water Rights issued Conditional Water Licence 26813. The licence was given a precedence date of July 18, 1960 and authorizes the diversion of 1,000 acre feet, from April 1 to September 30, from Chilanko River for irrigation purpose. The appurtenant lands are defined as Redstone Flat Reserve No. 1, Redstone, Cariboo District, of which 700 acres may be irrigated.

Conditional Licence 26813 is supplementary to Conditional Water Licence 20643 on Puntzi Lake.

Dec 12, 1963 — A letter from the Chief District Engineer stated that there were difficulties in maintaining the diversion structures under Conditional Water Licence 20643. In view of this, the Department of Indian Affairs had indicated that they were considering abandoning the licence. In the event that the abandonment was completed, the concrete dam at the outlet of Puntzi Lake would be removed.

Jan 24, 1964	A letter from the Indian Commissioner for B.C. requested that Conditional Water Licence 20643 on Puntzi Lake be abandoned as further need for storage was not required. The letter requested that Conditional Water Licence 26813 be retained, as the water was required for irrigation purposes.
Feb 25, 1964	The Deputy Comptroller of Water Rights issued an Order to amend Conditional Water Licence 26813. The amendment deleted clause (j) of the said licence.
Mar 6, 1964	In accordance with a request by the Indian Commissioner of B.C. to abandon Conditional Water Licence 20643, the Comptroller of Water Rights abandoned the licence.
Mar 24, 1964	A letter from the Comptroller of Water Rights stated that the Fish and Game Branch of the Department of Recreation and Conservation intended to apply for a water licence for Conservation (Fish Culture) purpose, such that the dam on Puntzi Lake would be retained. Further information regarding the proposed application has not been filed.

Current Status:

There are currently thirteen licences active on Chilanko Creek, one of which is held by the Alexis Creek Band. Of the licences:

- 10 authorize the use of water for irrigation purpose, ranging from 12 to 1,000 acre feet.
- 3 authorize the use of water for domestic purpose, ranging from 500 to 1,500 gallons per day.
- 1 authorizes the use of 1,900 acre feet of water for construction purpose.
- 1 authorizes the use of 9,863 gallons per day of water for dust control purpose.

*Note: A single licence may authorize the use and diversion of water for multiple purposes.

The Water Survey of Canada operated station 08MB004 on Chilanko River from January to December from the years 1961 to 1971. During this period, the station recorded a minimum daily discharge of .113 m^3/sec (3.99 cubic feet/sec) on August 11,

1970, and a maximum daily discharge of 220 m^3/sec (80.17 cubic feet/sec) on May 4, 1968. Mean monthly discharges reached a low of .444 m^3/sec in January, and rose to a high of 1.78 m^3/sec in May.

Notes:

1. The abandonment of Conditional Water Licence 20643 resulted in a loss of licenced rights on Puntzi Lake for the Alexis Creek First Nation.

Guichon Creek:

History:

Oct 12, 1994 — In accordance with an application made by the Alexis Creek Band, the Comptrolier of Water Rights issued Conditional Water Licence 101481. This licence was assigned a precedence date of May 12, 1983 and authorizes the impoundment of 130 acre feet, from April 1 to July 15, from Guichon Creek. The maximum quantity of water which may be used for irrigation purpose is 52 acre feet per annum. The appurtenant lands are defined as District Lots 1507 and 1508, Range 3, Coast District, Alexis Creek Reserve No. 34.

Current Status:

Conditional Water Licence 101481 is currently the only licence active on Guichon Creek. It is for the use and benefit of the Alexis Creek Band.

The Water Survey of Canada has no records of streamflow on Guichon Creek and no other current information on water availability for the Creek could be located.

Notes:

1. The allotment of water authorized under Conditional Water Licence 101481 is less than the Alexis Creek Band originally applied for.

Jorgensen Creek and Unnamed Creek , Springs, & Pond:

History:

May 9, 1983 The Alexis Creek First Nation submitted three water rights applications:

i. Z 101429 requested authorization to divert the total flow of water from Jorgensen Creek for flood irrigation and land improvement purposes.

ii. Z 101479 requested authorization to divert the total flow of water from an unnamed creek for flood irrigation and land improvement purposes.

iii. Z 101518 requested authorization to divert the total flow of water from unnamed springs for flood irrigation and land improvement purposes.

iv. Z 101497 requested authorization to divert the total flow of water from an unnamed pond for flood irrigation and land improvement purposes.

May 11, 1983 The Alexis Creek First Nation filed Z 101431, requesting authorization to divert the total flow of water from Jorgensen Creek for flood irrigation and land improvement purposes.

Aug 11, 1983 Objections to the above five applications were submitted by Chezacut Ranches Ltd and forwarded to the Regional Water Manager. The letters of objection stated that existing water within Jorgensen Creek could not meet existing demands and needs.

The applications are currently in their preliminary stages and require further investigation.

Further information regarding the status of the applications is not available on file.

Current Status:

There are currently four licences active on Jorgensen Creek, none of which are held by the Alexis Creek Band. Of the licences:

- 2 authorize the use of water for storage non-power purpose, ranging from 50 to 100 acrefeet.
- 1 authorizes the use of 110 acre feet water for irrigation purpose.
- 1 authorizes the use of 15 cubic feet per second of water for power - commercial purpose.

The Water Survey of Canada has no records of streamflow on Jorgensen Creek. No alternative sources of current water availability data were located during the course of this review.

Notes:

1. There are currently two outstanding applications on Jorgensen Creek. In addition, there are also outstanding applications on unnamed springs, an unnamed pond, and an unnamed creek. The five applications have been outstanding since 1983.

Puntzi Creek:

History:

May 9, 1983 — Water applications Z 101466 and Z 101582 were filed by the Alexis Creek Band. The applications request water rights permits to divert the total flow of water for flood irrigation and land improvement purposes on Puntzi Creek.

Mar 17, 1988 — A letter addressed to the Regional Water Manager from the business community of Chilanko Forks stated that there were several illegal diversions and water dams on Puntzi Creek which were holding back a large amount of water for the purpose of flood irrigating.

Puntzi Creek is the only spawning creek available for the trout from Puntzi Lake and maintaining a sufficient water level is recognized as crucial to this fishery.

Jul 14, 1988 — A letter from the Regional Water Manager stated that investigations had shown that Puntzi Creek and its tributaries are fully recorded under existing licences. The Regional Water Manager stated that there is insufficient water in the source to

enable the granting of additional licences. Consequently, the applications made by the Alexis Creek Band were refused.

Oct 17, 1990

A letter from the Comptroller of Water Rights indicated that the Alexis Creek First Nation did not appeal the refusal of their licence application.

The letter further stated that the unauthorized diversion of water from Puntzi Creek by the Alexis Creek First Nation remained an issue. It was stated that if the Band continued to make use of the water from Puntzi Creek, applications for water licences should be made and discussions respecting the fisheries requirements should be initiated with the Band.

Further information regarding the recommendation for the Band to apply for water licences is not available on file.

Oct 17, 1994

In accordance with an application made by the Alexis Creek First Nation, the Comptroller of Water Rights issued Conditional Water Licence 107973. The licence was given a precedence date of November 23, 1951 and authorizes the impoundment of 51 acre feet, from October 1 to March 31, from Puntzi Creek. The maximum quantity of water which may be used for irrigation purpose is 33.75 acre feet per annum. The appurtenant lands are defined as Lot 1513, Range 3, Coast District (Alexis Creek Reserve No. 12).

Fish protection requirements have been incorporated into Conditional Water Licence 107973. The requirements will be reviewed provide that the licence will be reviewed and adjusted every five years by both the regional Water Management and Fish and Wildlife offices, if necessary.

Permit Over Crown Lands 21301 was granted to the Alexis Creek Band in support of Conditional Water Licence 107973. The permit authorizes the occupation of Crown Land for the construction and maintenance of works required under the licence.

Mar 27, 1996

In response to an application filed by the Alexis Creek Band, the Comptroller of Water Rights issued Conditional Water Licence 107970. The licence was assigned a precedence date of November 23, 1951 and authorizes the impoundment of 37.8 acre feet, from October 1 to March 31, from Puntzi Creek. The maximum quantity of water which may be used for irrigation purpose is 38.75 acre feet

per annum. The appurtenant lands are defined as Lot 1519, Toby Helenes Meadow Reserve No. 10, Range 3, Coast District.

Fish protection requirements have been incorporated into Conditional Water Licence 107970. The licence stipulates that it will be subject to review and adjustment every five years by both the regional Water Management and Fish and Wildlife offices, if necessary.

In connection with Conditional Water Licence 107970, Permit Over Crown Lands 21944 was granted to the Alexis Creek Band. The permit authorizes the occupation of Crown Land for the construction and maintenance of works required under Conditional Licence 107970.

Current Status:

There are currently six licences active on Puntzi Lake, none of which are held by the Alexis Creek Band. Of the licences:

- 4 authorize the use of 4 acre feet of water for residential, lawn and garden purpose.
- 2 authorize the use of water for construction purpose, ranging from 300 to 12,000 acre feet.

The Water Survey of Canada operated station 08MB011 on Puntzi Creek from April to October during the years extending from 1988 to 1990. The only recorded minimum daily discharge was .002 m^3/sec (.070 cubic feet/sec), dated September 2, 1988. The maximum daily discharge recorded was .477 m^3/sec (1065.42 cubic feet/sec) on April 2, 1990. Mean monthly discharges for this period reached a low of .023 m^3/sec in September, and rose to a high of .193 m^3/sec in April.

Notes:

1. The allotment of water under Conditional Water Licence 101790 is more than the Alexis Creek Band applied for.

Timothy Creek:

History:

Jun 15, 1994 In accordance with an application made by the Alexis Creek Band, the Comptroller of Water Rights issued Conditional Water Licence 101482. This licence was given a precedence date of May 12, 1983 and authorizes the impoundment of 82 acre feet, from April 1 to July 15, from Timothy Creek. The maximum quantity of water which may be used for irrigation purpose is 41 acre feet per annum. The appurtenant lands are defined as Alexis Creek Reserve No. 32, District Lots 1502 and 1504, Range 3, Coast District.

Current Status:

Conditional Water Licence 101482, for the use and benefit of the Alexis Creek Band, is currently the licence active on Timothy Creek.

The Water Survey of Canada has no records of streamflow on Timothy Creek and no other current sources of information on water availability were located.

Notes:

1. There is no additional information with respect to the rights of the Alexis First Nation on Timothy Creek.

OTHER INFORMATION:

Groundwater Records:

A review of records maintained by the MELP - Groundwater Section found that no wells have been reported on any of the Alexis Creek Reserves. However, as the provision of well information to the Groundwater Section is voluntary, this review should not be assumed to be complete.

Alternate Water Sources:

Currently, the potential for water supply from connection to municipal water system is limited as there are no such systems in reasonable proximity to any of the Alexis Creek Reserves.

Summary of Water Rights Records

Alexis Creek First Nation

Water Source	Priority Date	Reserve Name	File No.	Document Type	Status	Superceded By	Licence PUC/MOD & OIC Allotments	Comments
Billy Creek	1983/05/12	Alexis Creek 22	5000132	CL 101480	Current		72 AF/Irrigation	Water Source: Billy Cr. has since been noted as "Fully Recorded".
Charleyboy Marsh	1983/05/12	Charley Boy's Meadow # 3	5000131	CL 101494	Current		28 AF/Irrigation	Water Source: Charleyboy Marsh has since been noted as "Fully Recorded". Allocation Volume: Less than volume originally requested by Band.
Chilanko River	1960/07/18	Redstone Flat 1	0232084	CL 26813	Current		1,000 AF/Irrigation	
Puntzi Lake	1951/06/23	Redstone Flat 1	0167327	CL 20643	Abandoned		1,400 AF/Irrigation	Abandonment - 16 Jan 1964: Resulted in loss of all licenced rights for Band on Puntzi Lake.
Guichon Creek	1983/05/12	Alexis Creek 34	5000124	CL 101481	Current		52 AF/Irrigation	Allocation Volume: Less than volume the Band originally applied for.
Jorgensen Creek	1983/05/12	Alexis Creek 21	5000128	Z 101429	Application		80 AF/Irrigation 0 TF/LDIMP	Status: Application has been outstanding since 1983.
Jorgensen Creek	1983/05/12	Alexis Creek 26	5000133	Z 101431	Application		80 AF/Irrigation 0 TF/LDIMP	Status: Application has been outstanding since 1983.

unnamed springs	1983/05/12	Alexis Creek 14	5000123	Z 101518	Application		80 AF/Irrigation 0 TF/LDIMP	Status: Application has been outstanding since 1983.
unnamed pond	1983/05/12	Alexis Creek 20	5000127	Z 101497	Application		20 AF/Irrigation 0 TF/LDIMP	Status: Application has been outstanding since 1983.
unnamed creek	1983/05/12	Alexis Creek 21	5000130	Z 101479	Application		40 AF/Irrigation 0 TF/LDIMP	Status: Application has been outstanding since 1983.
Puntzi Creek	1951/11/23	Toby Helenes Meadows 10	5000269	CL 107970	Current		38.75 AF/Irrigation	Allocation Volume: In excess of that originally requested by the Band.
Puntzi Creek	1951/11/23	Alexis Creek 12	5000272	CL 107973	Current		33.75 AF/Irrigation	
Puntzi Creek	1983/05/12	Toby Helenes Meadows 10	5000129	Z 101466	Application		100 AF/Irrigation 0 TF/LDIMP	Status: Application has been outstanding since 1983.
Puntzi Creek	1983/05/12	Alexis Creek 21	5000126	Z 101582	Application		50 AF/Irrigation 0 TF/LDIMP	
Timothy Creek	1983/05/12	Alexis Creek 32	5000125	CL 101482	Current		41 AF/Irrigation	

W.R. 51-9225 (2)

PROVINCE OF BRITISH COLUMBIA

Water Rights Branch

DEPARTMENT OF LANDS AND FORESTS

CONDITIONAL WATER LICENCE

DIRECTOR OF INDIAN AFFAIRS of Ottawa, Ontario is

hereby authorized to divert and use water as follows:—

(a) The source of the water-supply is Puntzi Lake.

(b) The point of diversion is located as shown on the attached plan.

(c) The date from which this licence shall have precedence is 23rd June, 1951.

(d) The purpose for which the water is to be used is Irrigation.

(e) The maximum quantity of water which may be diverted is 1,400 acre feet per annum and such additional quantity as the Engineer may from time to time determine should be allowed for losses.

(f) The period of the year during which the water may be used is 1st April to 30th September.

(g) The land upon which the water is to be used and to which this licence is appurtenant is Indian Reserve No. 1, Redstone, of which 700 acres may be irrigated.

(h) The works authorized to be constructed are pipe and ditch and they shall be located approximately as shown on the attached plan.

(i) The construction of the said works shall be commenced on or before the 31st day of May, 1952, and shall be completed and the water beneficially used on or before the 31st day of December, 1957.

Ref. Map No. 29(C-7)
By A.L.

C.26813 is supplementary to this licence.
1/12/61

(E.H. Tredcroft)
Comptroller of Water Rights.

File No. 0167327 Date issued April 1, 1952 Licence No. 20643

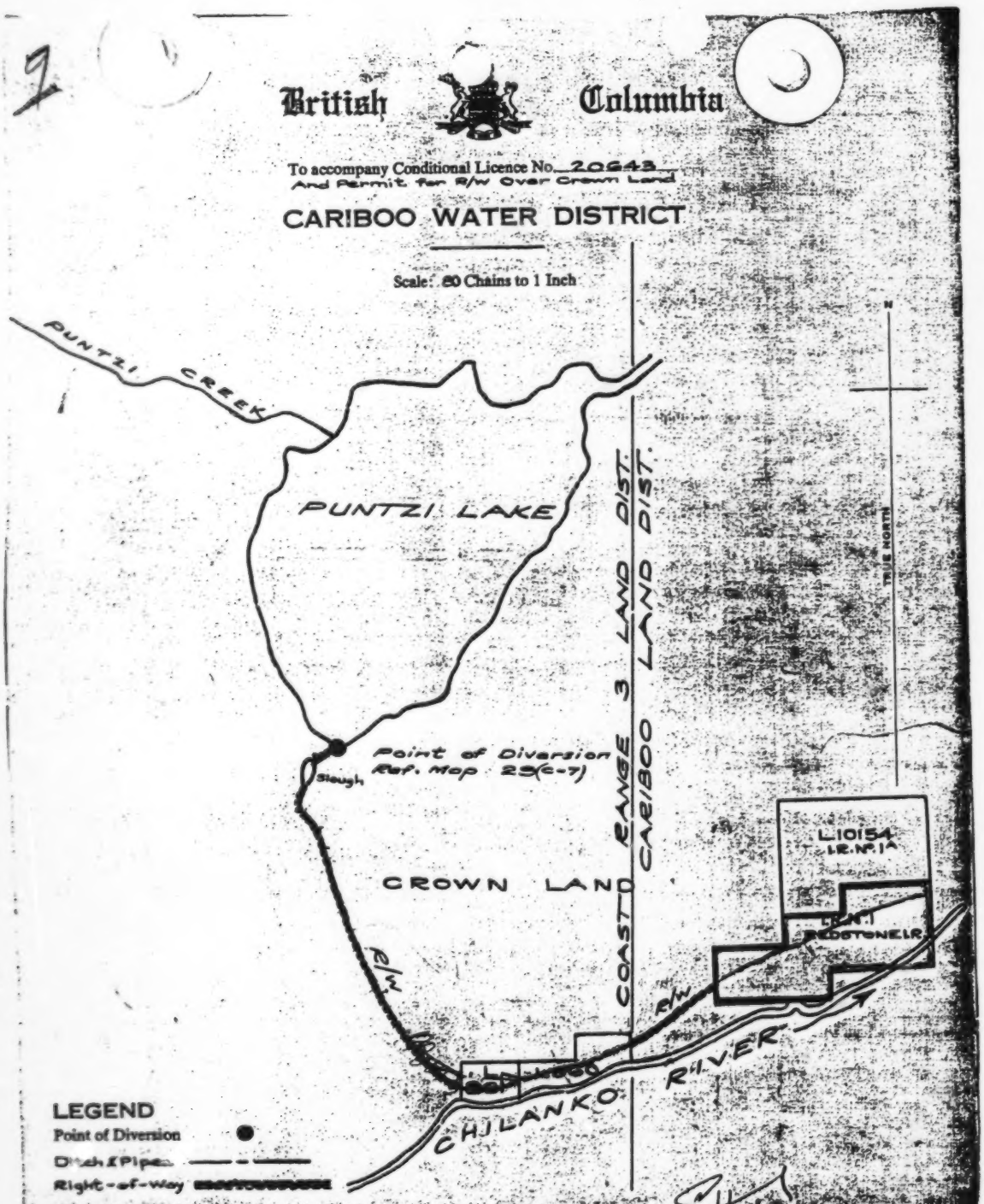
2

British Columbia

To accompany Conditional Licence No. 20643
And Permit for R/W over Crown Land

CARIBOO WATER DISTRICT

Scale: 80 Chains to 1 Inch



LEGEND

Point of Diversion ●

Ditch & Pipe ——— - ———

Right-of-Way

The boundaries of the land to which this licence is appurtenant are shown thus:

Signature

Date April 1st 1952

C.L. 20643

File 0167327

EXHIBIT "A"

For R/W see Ref Maps 29(C-7) 29B(C-1)

WATER RIGHTS BRANCH
DEPARTMENT OF LANDS AND FORESTS

ORDER

WATER ACT

Section 13

File No. 0167327

The provisions of the B. C. Water Act having been complied with and being satisfied that no person's rights will be affected, I hereby extend the time for the completion of the works and for making beneficial use of the water authorized under Conditional Water Licence No. 20643 , Puntzi Lake, to the 31st day of December, 1964

Deputy Comptroller of Water Rights.

DATED at Victoria, B. C.,
this 22nd day of July , 1963.

W.R.B. 42

Void June 16 1964

WATER RIGHTS BRANCH
DEPARTMENT OF LANDS AND FORESTS

ORDER

WATER ACT

Section 13

File No. 0167327

The provisions of the B. C. Water Act having been complied with and being satisfied that no person's rights will be affected, I hereby extend the time for the completion of the works and for making beneficial use of the water authorized under Conditional Water Licence No. 20643 , Puntzi Lake to the 31st day of December, 1962.

V. Raudsepp,
Deputy Comptroller of Water Rights.

DATED at Victoria, B. C.,
this 8th day of February , 1960

W.R.B. 42

W.R.B. 13—o

PROVINCE OF BRITISH COLUMBIA

Water Rights Branch

DEPARTMENT OF LANDS AND FORESTS

CONDITIONAL WATER LICENCE

Indian Affairs Branch, Department of Citizenship and Immigration of Ottawa, Ontario.

is/are hereby authorized to divert and use water as follows:—

(a) The source (s) of the water-supply is/are Chilanko River .

(b) The point (s) of diversion is/are located as shown on the attached plan.

(c) The date from which this licence shall have precedence is 18th July, 1960.

(d) The purpose for which the water is to be used is irrigation .

(e) The maximum quantity of water which may be diverted is 1000 acre-feet per annum, and such additional quantity as the Engineer may from time to time determine should be allowed for losses.

(f) The period of the year during which the water may be used is 1st April to 30th September.

(g) The land upon which the water is to be used and to which this licence is appurtenant is

Indian Reserve No. 1, Redstone, Cariboo District, of which 500 acres may be irrigated.

(h) The works authorized to be constructed are pumps and pipelines, and they shall be located approximately as shown on the attached plan.

(i) The construction of the said works has been completed and the water beneficially used shall be used on or before the 31st day of December , 19 64 .

(j) This licence is supplementary to Conditional Water Licence No. 20643, Puntzi Lake, and the maximum quantity of water which may be used is the quantity which together with the quantity available under Conditional Water Licence No. 20643, will provide 2 acre-feet of water per acre of land irrigated.

Entered on Map No. 93 B/SW R.M.

A. L. Paget,
Comptroller of Water Rights.

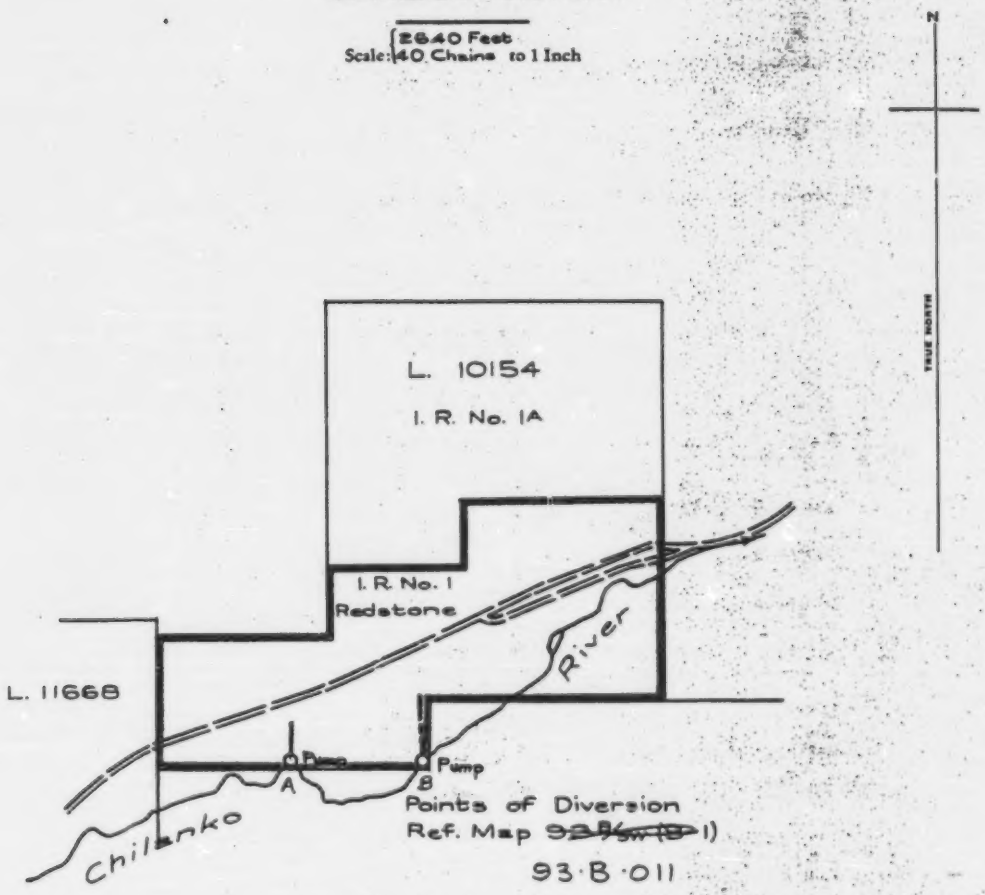
File No. 0232084 Date issued 1st December, 1961 Licence No. 26813

British Columbia

9

CARIBOO WATER DISTRICT
CARIBOO DISTRICT

Scale: 2640 Feet / 40 Chains to 1 Inch



LEGEND

Point of Diversion O

Pipe ——— - ———

The boundaries of the land to which this licence is appurtenant are shown thus: ———————

EXHIBIT "A"

Signature [signature]

Date 7 Dec, 1961

C.L. 26813

File 0232084

ORDER

WATER ACT

Section 15

FILE NO. 0232084

In the matter of Conditional Water Licence 26813, which authorizes the diversion of 1,000 acre feet per annum of water from Chilanko River for the irrigation of 500 acres of Indian Reserve No. 1, Redstone, Cariboo District.

Being satisfied that no person's rights will be injuriously affected, I hereby delete Clause (j) of the said licence.

Dated at Victoria, B.C., this 25th day of February, 1964.

Gordon J.A. Kidd,
Deputy Comptroller of Water Rights.

WATER RIGHTS BRANCH
DEPARTMENT OF LANDS, FORESTS, AND WATER RESOURCES

ORDER

WATER ACT

Section 15

File No. 0232084

The provisions of the B. C. Water Act having been complied with and being satisfied that no person's rights will be affected, I hereby extend the time for the completion of the works and for making beneficial use of the water authorized under Conditional Water Licence No. 26813 , Chilanko River, to the 31st day of December, 1966.

H.D. DeBeck,
Deputy Comptroller of Water Rights.

DATED at Victoria, B. C.,
this 9th day of February , 1965.

W.R.B. 42

WATER RIGHTS BRANCH
DEPARTMENT OF LANDS AND FORESTS

O R D E R

W A T E R A C T

Section 13

File No. 0167327

The provisions of the B. C. Water Act having been complied with and being satisfied that no person's rights will be affected, I hereby extend the time for the completion of the works and for making beneficial use of the water authorized under Conditional Water Licence No. 20643 , Puntzi Lake to the 31st day of December, 1959.

V. Raudsepp
Deputy Comptroller of Water Rights.

DATED at Victoria, B. C.,
this 24th day of March , 1958.

W.R.B. 42

WATER MANAGEMENT BRANCH

MINISTRY OF ENVIRONMENT, LANDS AND PARKS

THE PROVINCE OF BRITISH COLUMBIA——WATER ACT

CONDITIONAL WATER LICENCE

The Alexis Creek Indian Band is hereby authorized to store water as follows:

a) The stream on which the rights are granted is Billy Creek.

(b) The points of diversion are located as shown on the attached plan.

(c) The date from which this licence shall have precedence is 12th May 1983.

(d) The purpose for which this licence is issued is irrigation (backflood).

(e) The maximum quantity of water which may be impounded is 108 acre feet and the maximum quantity of water which may be used for irrigation purpose is 72 acre feet per annum.

(f) The period during which the water may be impounded is 1st April to 15th July provided that an engineer under the Water Act may restrict or prohibit the impoundment of the water at any time and the release of the impounded water to ensure the preservation of fish life.

(g) The land upon which the water is to be used and to which this licence is appurtenant is District Lots 1437 and 1438, within IR 22, Range 3, Coast District, of which 72 acres may be irrigated.

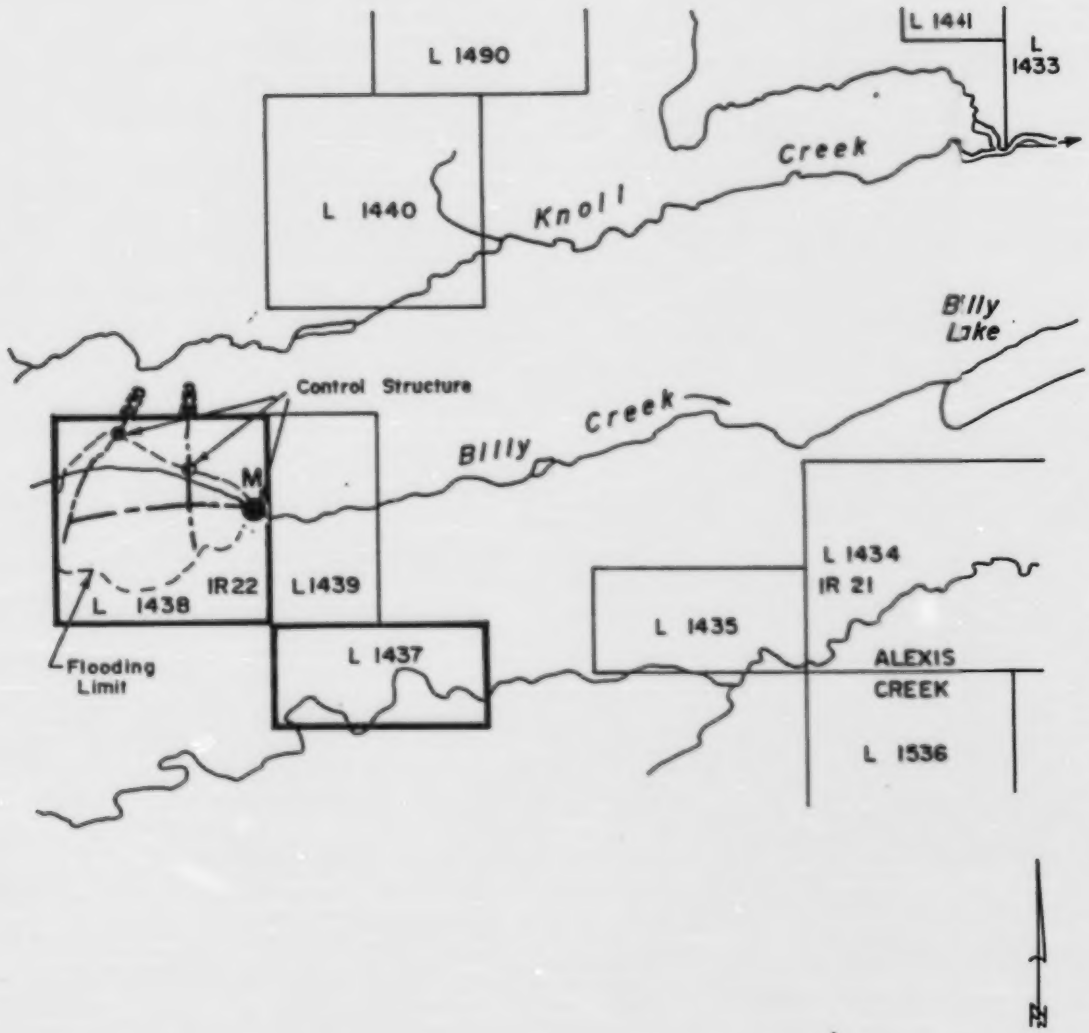
(h) The works authorized to be constructed are control structures and ditches and shall be located approximately on the attached plan.

(i) The construction of the said works has been completed and the water is being beneficially used. The licensee shall continue to make a regular beneficial use of water in the manner authorized herein.

K. W. Sondra, P.Eng.
Assistant Regional Water Manager

File No. 5000132 Date Issued: OCT 12 1994 Conditional Licence 101480

Province of British Columbia



WATER DISTRICT : CARIBOO
PRECINCT : CHILCOTIN
LAND DISTRICT : RANGE 3 COAST DISTRICT

LEGEND

Scale : 1:20000
Point of Diversion : ●
Map Number : WR 93-C-039
Ditch : ———
Permit over Crown Land: [redacted]

The boundaries of the land to which this licence is appurtenant are shown thus: ———

Signature K.W. [illegible]
Date OCT 12 1994

C.L. 101480
File 5000132
P.C.L. 21254

WATER MANAGEMENT BRANCH

MINISTRY OF ENVIRONMENT, LANDS AND PARKS

THE PROVINCE OF BRITISH COLUMBIA—WATER ACT

CONDITIONAL WATER LICENCE

The Alexis Creek Indian Band is hereby authorized to store water as follows:

a) The stream on which the rights are granted is Guichon Creek.

(b) The point of diversion is located as shown on the attached plan.

(c) The date from which this licence shall have precedence is 12th May 1983.

(d) The purpose for which this licence is issued is irrigation (backflood).

(e) The maximum quantity of water which may be impounded is 130 acre feet and the maximum quantity of water which may be used for irrigation purpose is 52 acre feet per annum.

(f) The period during which the water may be impounded is 1st April to 15th July provided that an engineer under the Water Act may restrict or prohibit the impoundment of the water at any time and the release of the impounded water to ensure the preservation of fish life.

(g) The land upon which the water is to be used and to which this licence is appurtenant is District Lots 1507 and 1508, Range 3, Coast District, IR 34, of which 52 acres may be irrigated.

(h) The works authorized to be constructed are control structures and ditches and shall be located approximately on the attached plan.

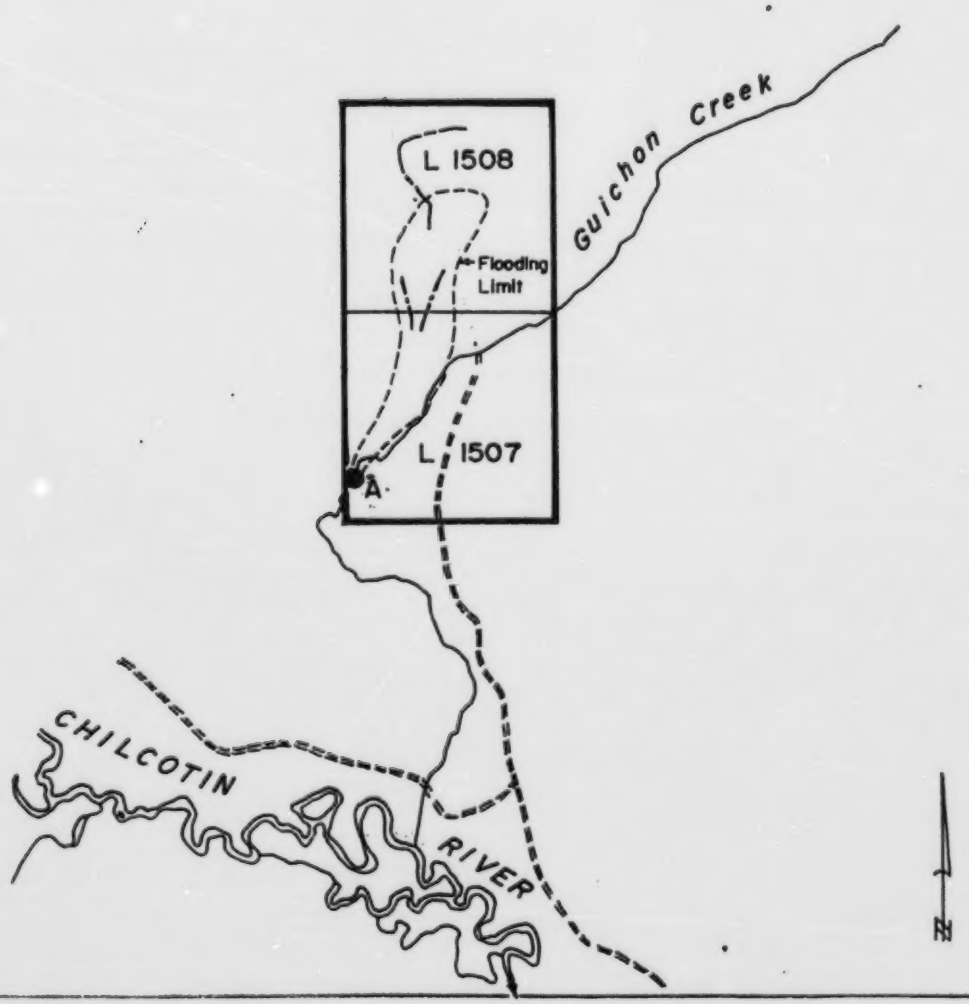
(i) The construction of the said works has been completed and the water is being beneficially used. The licensee shall continue to make a regular beneficial use of water in the manner authorized herein.

(j) At no time during the irrigation period should the use of the works associated with the licence cause the flow in the creek downstream of the appurtenant land to drop below one cubic foot per second.

K. W. Soneff, P.Eng
Assistant Regional Water Manager

File No. 5000124 **Date Issued:** OCT 12 1994 **Conditional Licence 101481**

Province of British Columbia



WATER DISTRICT : CARIBOO
PRECINCT : CHILCOTIN
LAND DISTRICT : RANGE 3 COAST DISTRICT

LEGEND

Scale : 1:20 000
Point of Diversion : ⊕
Map Number : WR 93·C·049
Ditch : —·—

Signature K.W. [illegible]
Date OCT 12 1994

C.L. 101481
File 5000124

The boundaries of the land to which this licence is appurtenant are shown thus: ——————

WATER MANAGEMENT BRANCH

MINISTRY OF ENVIRONMENT, LANDS AND PARKS

THE PROVINCE OF BRITISH COLUMBIA——WATER ACT

CONDITIONAL WATER LICENCE

The Alexis Creek Indian Band is hereby authorized to store and use water as follows:

(a) The stream on which the rights are granted is Timothy Creek.

(b) The point of storage is located as shown on the attached plan.

(c) The date from which this licence shall have precedence is May 12, 1983.

(d) The purpose for which this licence is issued is irrigation (backflood).

(e) The maximum quantity of water which may be impounded is 82 acre feet and the maximum quantity of water which may be used for irrigation purpose is 41 acre feet per annum.

(f) The period during which the water may be impounded is 1st April to 15th July provided that an engineer under the Water Act may restrict or prohibit the impoundment of the water at any time and the release of the impounded water to ensure the preservation of fish life.

(g) The land upon which the water is to be used and to which this licence is appurtenant is Indian Reserve #32, District Lots 1502 and 1504, Range 03, Coast District, of which 41 acres may be irrigated.

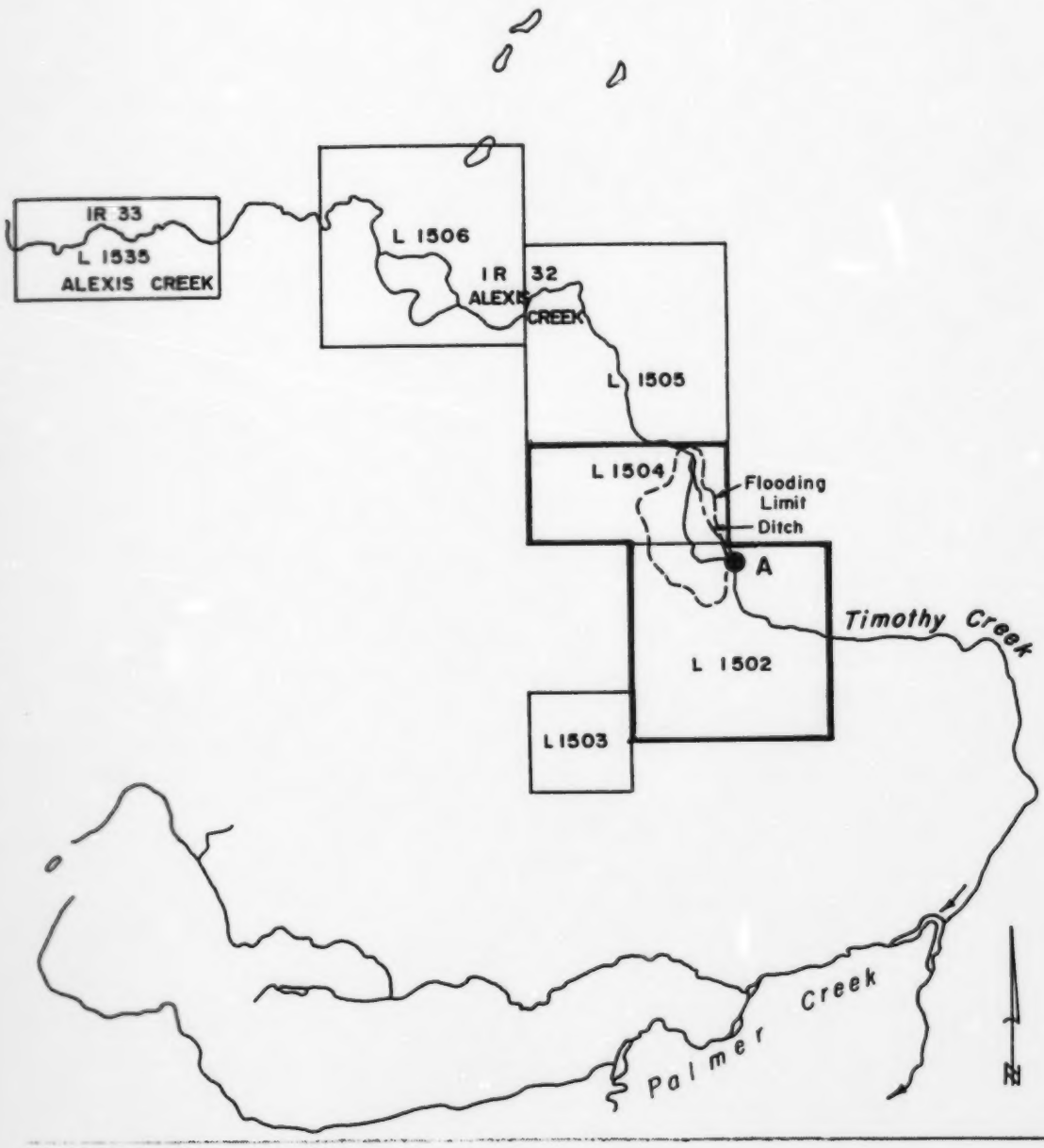
(h) The authorized works are control structures and ditches which have been constructed and are located approximately as shown on the attached plan.

(i) The water is being beneficially used and the licensee shall continue to make regular beneficial use of water in the manner authorized herein.

D.W. Roberts, P.Eng.
Regional Water Manager

File No. 5000125 Date Issued: JUN 15 1994 Conditional Licence 101482

Province of British Columbia



WATER DISTRICT : CARIBOO
PRECINCT : CHILCOTIN
LAND DISTRICT : RANGE 3 COAST DISTRICT

Signature O.W. Plant
Date JUN 15 1994

LEGEND

Scale : 1:20000
Point of Diversion Backflood Structure : ●
Map Number : WR 93-C-048
Ditch : — - —

C.L. 101482
File 5000125

* The boundaries of the land to which this licence is appurtenant are shown thus: ————

WATER MANAGEMENT BRANCH

MINISTRY OF ENVIRONMENT, LANDS AND PARKS

THE PROVINCE OF BRITISH COLUMBIA——WATER ACT

CONDITIONAL WATER LICENCE

The Alexis Creek Indian Band is hereby authorized to store and use water as follows:

(a) The stream on which the rights are granted is Charleyboy Marsh.

(b) The point of storage is located as shown on the attached plan.

(c) The date from which this licence shall have precedence is May 12, 1983.

(d) The purpose for which this licence is issued is irrigation (backflood).

(e) The maximum quantity of water which may be impounded is 42 acre feet and the maximum quantity of water which may be used for irrigation purpose is 28 acre feet per annum.

(f) The period during which the water may be impounded is 1st April to 15th July provided that an engineer under the Water Act may restrict or prohibit the impoundment of the water at any time and the release of the impounded water to ensure the preservation of fish life.

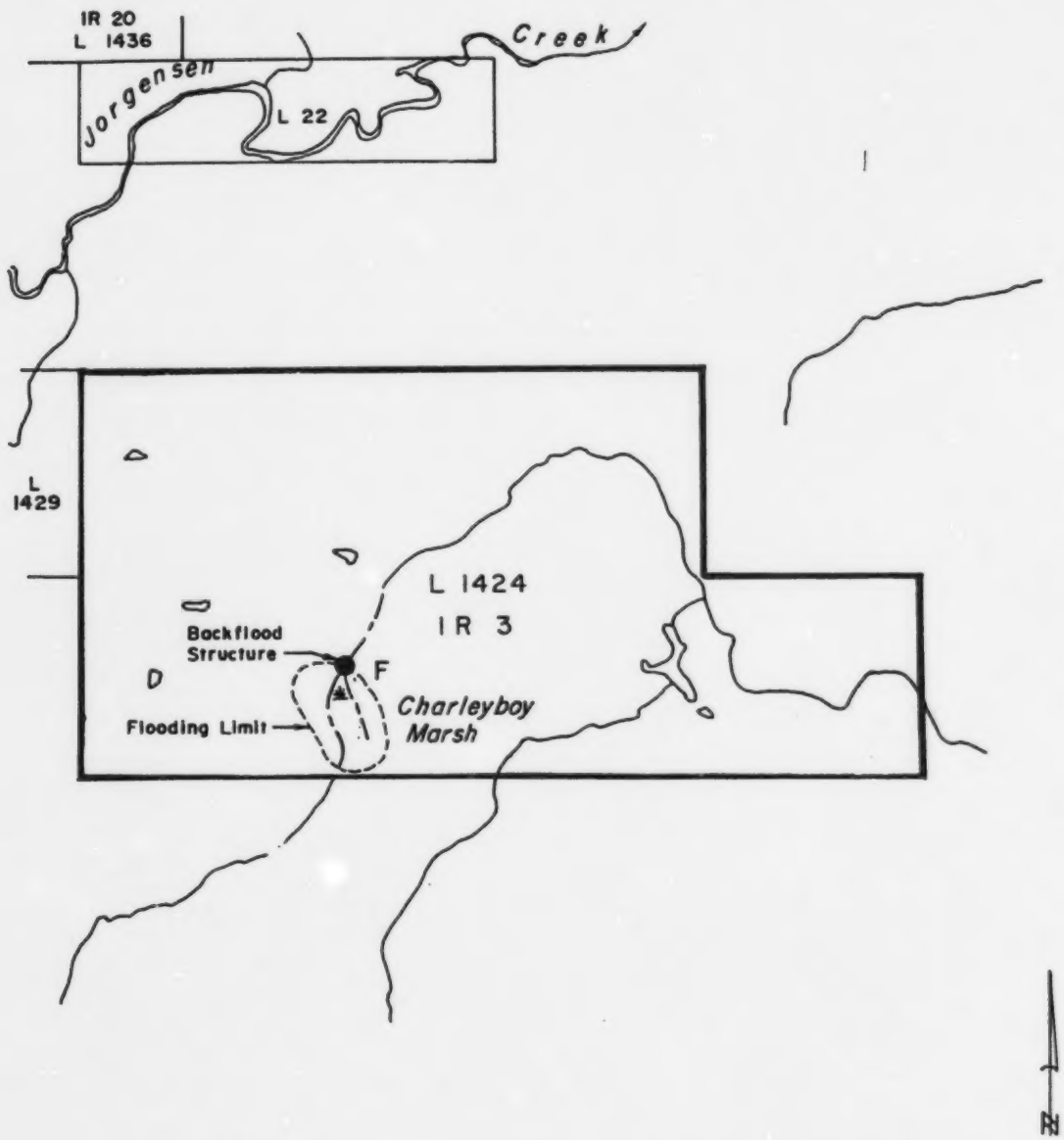
(g) The land upon which the water is to be used and to which this licence is appurtenant is Indian Reserve #3, District Lot 1424, Range 3, Coast District, of which 28 acres may be irrigated.

(h) The authorized works are control structure and ditches which have been constructed and are located approximately as shown on the attached plan.

D.W. Roberts, P.Eng.
Regional Water Manager

File No. 5000131 Date Issued: JUN 15 1994 Conditional Licence 101494

Province of British Columbia



WATER DISTRICT : CARIBOO
PRECINCT : CHILCOTIN
LAND DISTRICT : RANGE 3 COAST DISTRICT

Signature J.M. Robert
Date JUN 15 1994

LEGEND

Scale : 1:20000
Point of Diversion : ●
Map Number : WR 93-C-039
Ditch : — — —

C.L. 101494
File 5000131

The boundaries of the land to which this licence is appurtenant are shown thus: ———

WATER MANAGEMENT BRANCH

MINISTRY OF ENVIRONMENT

THE PROVINCE OF BRITISH COLUMBIA—WATER ACT

CONDITIONAL WATER LICENCE

The Alexis Creek Indian Band is hereby authorized to store and use water as follows:

(a) The stream on which the rights are granted is Puntzi Creek.

(b) The point of storage is located as shown on the attached plan.

(c) The date from which this licence shall have precedence is 23rd November, 1951.

(d) The purpose for which this licence is issued is irrigation (back flood).

(e) 1. The maximum quantity of water which may be impounded at any one time is 37.8 acre feet, of which a maximum quantity of 38.75 acre feet per annum may be used for irrigation purpose.

2. The quantity of water impounded between October 1st and March 31st shall not exceed that volume required to fill the channel of Puntzi Creek upstream of the point of storage and through the meadow on Lot 1519, Range 3, Coast District.

3. The maximum rates at which the water may be impounded shall be such that Puntzi Creek flows, required for the preservation of fish life, will not be diminished, as set out in the attached Schedule "A" of the Puntzi Compact.

(f) The period of the year during which the water may be impounded is 1st October to 30th June provided that an engineer under the *Water Act* may, at any time, restrict or prohibit the impoundment of water and may restrict the release of the impounded water to ensure the preservation of fish life.

(g) The land upon which the water is to be used and to which this licence is appurtenant is Lot 1519, IR #10 (Toby Helenes Meadow), Range 3, Coast District, of which 31.0 acres may be irrigated.

(h) The works authorized to be constructed are a control structure, which shall be located approximately as shown on the attached plan and shall also include the installation of a measuring device suitable to an engineer under the *Water Act*.

(i) The construction of the said works shall be completed and the water beneficially used prior to the 31st day of December, 1996. Thereafter, the licensee shall continue to make a regular beneficial use of the water in the manner authorized herein and in accordance with the terms of Schedule "A" of the Puntzi Compact, attached.

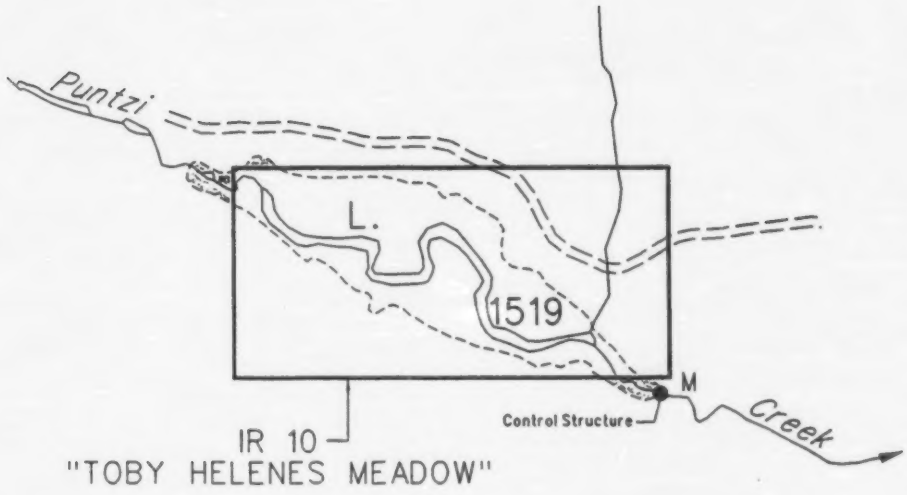
ORIGINAL DOCUMENT SIGNED
BY DEPUTY COMPTROLLER

J. E. Farrell
Deputy Comptroller of Water Rights

File No.: 5000269 Date issued: March 27, 1996 Conditional Licence: 107970

W-183

Province of British Columbia



WATER DISTRICT : CARIBOO
PRECINCT : CHILCOTIN
LAND DISTRICT : RANGE 3, COAST

LEGEND

Scale : 1 : 10000
Point of Diversion : ●
Map Number : WR 93.C.030

Permit over Crown Land :

The boundaries of the land to which this licence is appurtenant are shown thus : _____

Signature ....

Date Mar 27, 1996

CL 107970
File 5000269
PCL 21944

WATER MANAGEMENT BRANCH

MINISTRY OF ENVIRONMENT

THE PROVINCE OF BRITISH COLUMBIA—WATER ACT

CONDITIONAL WATER LICENCE

The Alexis Creek Indian Band is hereby authorized to store and use water as follows:

(a) The stream on which the rights are granted is Puntzi Creek.

(b) The point of storage is located as shown on the attached plan.

(c) The date from which this licence shall have precedence is 23rd November, 1951.

(d) The purpose for which this licence is issued is irrigation (backflood).

(e) 1) The maximum quantity of water which may be impounded is 51 acre-feet of which a maximum quantity of 33.75 acre feet per annum may be used for irrigation purpose.

2) The quantity of water impounded between October 1st and March 31st shall not exceed that volume required to fill the channel of Puntzi Creek upstream of the point of storage and through the meadow on Lots 1513 and 1530, Range 3, Coast District.

3) The maximum rates at which the water may be impounded shall be such that Puntzi Creek flows required for the preservation of fish life will not be diminished, as set out in the attached Schedule 'A' of the Puntzi Compact.

(f) The period of the year during which the water may be impounded is October 1st to June 30th provided that an engineer under the Water Act may, at any time, restrict or prohibit the impoundment of water and may restrict the release of the impounded water to ensure the preservation of fish life.

(g) The land upon which the water is to be used and to which this licence is appurtenant is Lot 1513, Range 3, Coast District, of which 27 acres may be irrigated.

(h) The works authorized to be constructed are a control structure, which shall be located approximately as shown on the attached plan and shall also include the installation of a measuring device suitable to an engineer under the Water Act.

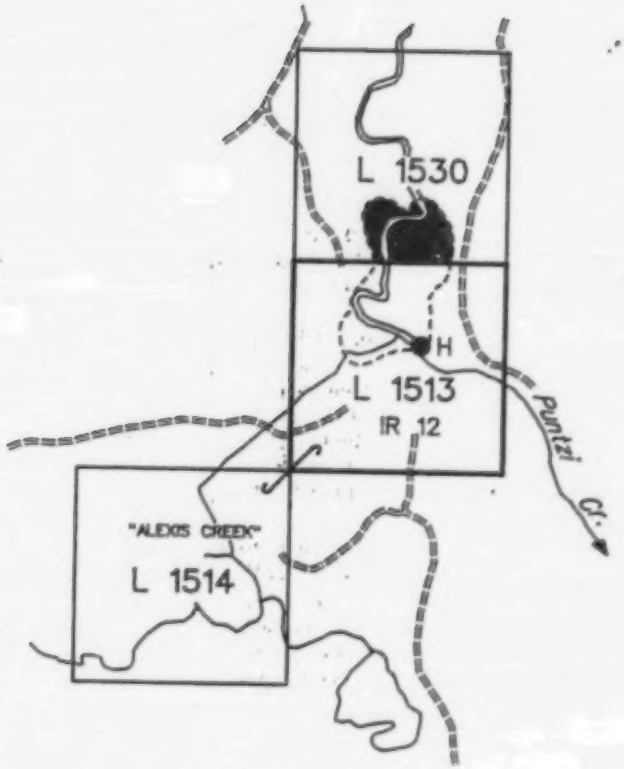
(i) The construction of the said works shall be completed and the water beneficially used prior to the 31st day of December, 1995. Thereafter, the licensee shall continue to make a regular beneficial use of water in the manner authorized herein and in accordance with the terms of Schedule 'A' of the Puntzi Compact, attached.

J. E. Farrell
Deputy Comptroller of Water Rights

File No. 5000272 Date Issued: October 17, 1994 Conditional Licence No. 107973

W-183

Province of British Columbia



WATER DISTRICT : CARIBOO
PRECINCT : CHILCOTIN
LAND DISTRICT : RANGE 3, COAST

LEGEND

Scale : 1 : 20000
Control Structure : ●
Map Number : WR 93.C.029
Permit over Crown Land : [redacted]

The boundaries of the land to which this licence is appurtenant are shown thus : ———

Signature [redacted]
Date October 17, 1994

CL 107973
File 5000272
P.C.L. 21301

Province of British Columbia

Ministry of Environment

PERMIT UNDER THE WATER ACT AUTHORIZING THE OCCUPATION OF CROWN LAND

The holder of Water Licence 107973, whose licence authorizes the impoundment of water from Puntzi Creek, is hereby authorized to occupy Crown Land by flooding.

(a) The Crown Land which is authorized to be occupied under this permit is a portion of District Lot 1530, Range 3, Coast District, the location of which is shown approximately on the plan attached to the said water licence.

(b) The approximate area of the Crown Land authorized to be occupied under this permit is 18 acres for flooding.

(c) The permittee may cut and remove from the said Crown Land any timber necessary to permit construction and maintenance of the said works (and clearing of the said lands which may be flooded). Prior to the cutting, destruction or flooding of any timber, the permittee shall apply for and obtain a licence to cut timber from the District Manager and the amount of stumpage, royalty and (or) compensation payable to the Crown in respect of trees, including merchantable or young growth, cut, removed, damaged, or destroyed by the permittee, shall be the sum or sums fixed by the Forest Service of the Province of British Columbia.

(d) This permit is appurtenant to the land to which the aforesaid water licence is appurtenant.

(e) This permit shall become void if the water licence with respect to which the permit is issued should terminate, be abandoned or cancelled, or amended so as to render this permit unnecessary.

(f) This permit is issued and accepted on the understanding that the permittee shall indemnify and save harmless the Government of the Province of British Columbia for all loss, damage to works, cost or expense suffered by the permittee by reason of the Crown Land or any portion thereof being submerged or damaged by erosion or otherwise affected by flooding.

(g) The holder of this permit shall not be entitled to compensation if the Crown grants permits to other persons to occupy the land affected by this permit.

(h) In the event of a dispute at any time with respect to the area or boundaries of the land affected by this permit, the holder shall, at his own expense, have the said land surveyed by a duly qualified surveyor.

J. E. Farrell
Deputy Comptroller of Water Rights
duly authorized designate of the
Minister of Environment, Lands and Parks

File No. 5000272 Date Issued: October 17, 1994 Permit No. 21301

Province of British Columbia

Ministry of Environment, Lands and Parks

PERMIT UNDER THE WATER ACT AUTHORIZING THE OCCUPATION OF CROWN LAND

The holder of **Conditional Water Licence 101480**, whose licence authorizes the diversion and use of water from **Billy Creek**, is hereby authorized to occupy Crown Land by constructing, maintaining and operating thereon the works authorized under the said licence and any licence which may be issued in substitution thereof.

(a) The Crown Land which is authorized to be occupied under this permit is a portion of unsurveyed vacant Crown land lying north of District Lot 1438, Range 3, Coast District a, the location of which is shown approximately on the plan attached to the said water licence.

(b) The approximate dimensions of the Crown Land authorized to be occupied under this permit are:

(1)	ditch 200 feet x 15 feet	0.07 acres
(2)	ditch 330 feet x 15 feet	0.10 acres

with a total area of approximately 0.17 acres.

(c) Prior to the cutting, removal, or destruction of any timber from the said Crown Land necessary to permit construction and maintenance of the said works, the permittee shall apply for and obtain a licence, from the Ministry of Forests, to cut timber. Application will be made to the District Manager of the Ministry of Forests and the amount of stumpage, royalty and (or) compensation payable to the Crown in respect of trees, including merchantable or young growth, cut, removed, damaged, or destroyed by the permittee, shall be the sum or sums fixed by the Forest Service of the Province of British Columbia.

(d) This permit is appurtenant to the land, mine or undertaking to which the aforesaid water licence is appurtenant.

(e) This permit shall become void if the water licence with respect to which the permit is issued should terminate, be abandoned or cancelled, or amended so as to render this permit unnecessary.

(f) This permit is issued and accepted on the understanding that the permittee shall indemnify and save harmless the Government of the Province of British Columbia for all loss, damage to works, cost or expense suffered by the permittee by reason of the Crown Land or any portion thereof being submerged or damaged by erosion or otherwise affected by flooding.

(g) The Permittee, shall not be entitled to compensation if the Crown grants permits to other persons to occupy the land affected by this permit.

(h) In the event of a dispute at any time with respect to the area or boundaries of the land affected by this permit, the holder shall, at his own expense, have the said land surveyed by a duly qualified surveyor.

K.W. Soneff

K. W. Soneff, P.Eng.
Assistant Regional Water Manager
Duly authorized designate
of the Ministry of Environment, Lands & Parks

File No. 5000132 **Date Issued:** OCT 12 1994 **Permit No. 21254**

Province of British Columbia

Ministry of Environment

PERMIT UNDER THE WATER ACT AUTHORIZING THE OCCUPATION OF CROWN LAND

The Holder of Conditional Water Licence 107970, whose licence authorizes the impoundment of water from Puntzi Creek, is hereby authorized to occupy Crown Land by flooding, constructing, maintaining and operating thereon the works authorized under the said licence.

(a) The Crown Land which is authorized to be occupied under this permit is unsurveyed land adjacent to the North, South and West boundaries of District Lot 1519, Range 3, Coast District, the location of which is shown approximately on the plan attached to the said water licence.

(b) The approximate area of the Crown Land authorized to be occupied under this permit is 1.3 acres for flooding and 1 acre for dam site.

(c) The permittee may cut and remove from the said Crown Land any timber necessary to permit construction and maintenance of the said works and clearing of the said lands which may be flooded. Prior to the cutting, destruction or flooding of any timber, the permittee shall apply for and obtain a licence to cut timber from the District Manager and the amount of stumpage, royalty and (or) compensation payable to the Crown in respect of trees, including merchantable or young growth, cut, removed, damaged, or destroyed by the permittee, shall be the sum or sums fixed by the Forest Service of the Province of British Columbia.

(d) This permit is appurtenant to the land to which the aforesaid water licence is appurtenant.

(e) This permit shall become void if the water licence with respect to which the permit is issued should terminate, be abandoned or cancelled, or amended so as to render this permit unnecessary.

(f) This permit is issued and accepted on the understanding that the permittee shall indemnify and save harmless the Government of the Province of British Columbia for all loss, damage to works, cost or expense suffered by the permittee by reason of the Crown Land or any portion thereof being submerged or damaged by erosion or otherwise affected by flooding.

(g) The holder of this permit shall not be entitled to compensation if the Crown grants permits to other persons to occupy the land affected by this permit.

(h) In the event of a dispute at any time with respect to the area or boundaries of the land affected by this permit, the holder shall, at his own expense, have the said land surveyed by a duly qualified surveyor.

ORIGINAL DOCUMENT SIGNED
BY DEPUTY COMPTROLLER

J. E. Farrell
Deputy Comptroller of Water Rights
duly authorized designate of the
Minister of Environment, Lands and Parks

File No.: 5000269 Date Issued: March 27, 1996 PERMIT NO.: 21944

Stream Register Report Water Licence Information System

Report Requested By : CROCHA
Date Report Requested : 1996/08/22 15:35
Report Sorted By : Source Gazetted - Priority Date - Licence Number
Selection Criteria
START POINT : P030302 - 91.C.029 K
END POINT : S017409 - Billy Creek right of Knoll Creek

Priority YYYY/MM/DD	Licence Number	File Number	Appurtenancy	Licensee	POC	Quantity/Units	Term Start	Term End	Licence Comments	Process Status
Source		WR Map	POD	RED POD Comments					Proc	
1983/05/12	C101480	5000122	DIST LOTS 1437 & 1438 WITHIN IR 22, R ANGE 3 COAST DIST	ALEXIS CREEK INDIAN BAND 989-710-8192 BOX 68 CHILANKO FORKS BC V0L1H0	IRR	72.00 AF	Apr 01	Jul 15	IMPOUNDED VOLUME 108 AC FT (72 AC X 1.5 FT. DEPTH)	
Billy Creek		WR93.C.039	H	H					05A CAR - CHILCOTIN	

---------- Total of 1 Licence Reported ----------

Stream Register Report Water Licence Information System

Report Requested By : CROCHA
Date Report Requested : 1996/08/22 15:37
Report Sorted By : Source Gazetted - Priority Date - Licence Number
Selection Criteria
START POINT : PD10366 - 93.C.039 J
END POINT : S017607 - Charleyboy Marsh right of Jorgenson Creek

Stream Register Report

Water Licence Information System

DATE: 1996/08/22
TIME: 15:17
PAGE: 001

Priority YYYY/MM/DD	Licence Number	File Number	Appurtenancy	Licensee	PUC	Quantity/Units	Term Start	Term End	Licence Comments	Process Status
Source		MR Map		POD RED POD Comments					Proc	
1983/05/12	C101494	5000131	L 1624 R 3 COAST DIST IR #3	ALEXIS CREEK INDIAN BAND 989-710-0173 BOX 69 CHILANKO FORKS BC V0L1H0	IRR	28.00 AF	Apr 01	Jul 15	BACKFLOOD IRRIGATION - MAXIMUM QUANTITY OF WATER TO BE IMPOUNDED IS 42 AC FT THE MAXIMUM QUANITY TO BE USED FOR IRRIGATIO N PURPOSE IS 28 AC FT	
Charleyboy Marsh		MR93.C.039		F H					05A CAR - CHILCOTIN	

---------- Total of 1 Licence Reported ----------

Stream Register Report Water Licence Information System

Report Requested By : CROCHA
Date Report Requested : 1996/08/19 15:45
Report Sorted By : Source Gazetted - Priority Date - Licence Number
Selection Criteria
START POINT : PD38351 - 93.C.010 A
END POINT : S017662 - Chilanko River right of Chilcotin River

Stream Register Report

Water Licence Information System

DATE: 1996/08/19
TIME: 15:45
PAGE: 001

Priority YYYY/MM/DD	Licence Number	File Number	Appurtenancy	Licensee	PUC	Quantity/Units	Term Start	Term End	Licence Comments	Process Status
	Source		MB Map	POD RED POD Comments					Proc	
1904/07/00	P006422	0242432	39.5 AC OF L 230 CARIBOO DIST LYING W OF CHILCOTIN R	ALTHERR & SCHELLENBERG CATTLE CO LTD BOX 88 ALEXIS CREEK BC V0L1A0	DOM IRR	500.00 GD 99.00 AF	Jan 01 Apr 01	Dec 31 Sep 30		
	Chilanko River		MR93.B.012	B H					05A CAR - CHILCOTIN	
1965/07/07	C016643	0156383	60 AC OF L 1393 R 3 COAST DIST	DICKS UNLIMITED (CANADA) 1290 S MACKENZIE AVE WILLIAMS LAKE BC V2G3Y1	IRR	150.00 AF	Apr 01	Sep 30		
	Chilanko River		MR93.C.009	A H					05A CAR - CHILCOTIN	
1960/07/10	C026013	0232084	IR 81 REDSTONE CARIBOO DIST	ALEXIS CREEK INDIAN BAND 989-710-8170 BOX 69 CHILANKO FORKS BC V0L1H0	IRR	1,000.00 AF	Apr 01	Sep 30		
	Chilanko River		MR93.B.011	A H					05A CAR - CHILCOTIN	
	Chilanko River		MR93.B.011	B H						
1962/07/09	C028281	0244943	200 AC OF L 965, 980, 981, 982 983 & 984 R 3 COAST DIST	SCHIFFERSTEIN UWE GD CHILANKO FORKS BC V0L1H0	DOM IRR	1,000.00 GD 200.00 AF	Jan 01 Apr 01	Dec 31 Sep 30		
	Chilanko River		MR93.C.019	C H					05A CAR - CHILCOTIN	
	Chilanko River		MR93.C.019	D H						
	Chilanko River		MR93.C.019	A H						
1964/09/21	C031532	0250959	PART OF L 7245 CARIBOO DIST LYING N & W OF CHILANKO R	JAMES VERNON & LORRAINE M CHILANKO ROSA CHILANKO FORKS BC V0L1H0	DOM	1,500.00 GD	Jan 01	Dec 31		AMD UNDER AMENDMENT
	Chilanko River		MR93.B.011	C H					05A CAR - CHILCOTIN	

Priority YYYY/MM/DD	Licence Number	File Number	Appurtenancy	Licencee	PUC	Quantity/Units	Term Start	Term End	Licence Comments	Process Status
	Source		WR Map	POD RED POD Comments					Proc	
1901/07/31	C066623	0368987	20 AC OF L 7265 CARIBOO DIST	JAKES VERNON & LORRAINE M CHILANKO RUSK CHILANKO FORKS BC V0L1R0	IRR	60.00 AF	Apr 01	Sep 30		AND UNDER AMENDMENT
	Chilanko River		WR91.B.011	E N					05A CAR - CHILCOTIN	
1902/08/16	C068140	5000645	SL 960 E 3 COAST DIST LYING S OF HIGH WAY RW PLAN 32643	SATRE CAROL J & LARS O E BOX 50 TATLA LAKE BC V0L1V0	IRR	280.00 AF	Apr 01	Sep 30		
	Chilanko River		WR91.C.020	N N					05A CAR - CHILCOTIN	
1990/02/13	C068156	5001023	WITHIN THE MINISTRY OF TRANS. & HIGHWAYS' RIGHT-OF-WAY IN THE VICINITY OF THE POINT OF DIVERSION CARIBOO DISTRI CT	TRANSPORTATION & HIGHWAYS MINISTRY OF CENTRAL CARIBOO DISTRICT 269 548 BORLAND ST WILLIAMS LAKE BC V2G1R8	DART	9,843.01 GD	Apr 15	Oct 31		
	Chilanko River		WR91.B.012	RE N					05A CAR - CHILCOTIN	

---------- Total of 13 Licences Reported ----------

Priority YYYY/MM/DD	Licence Number	File Number	Appurtenancy	Licensee	PUC	Quantity/Units	Term Start	Term End	Licence Comments	Process Status
Source			MR Map	POD RED POD Comments					Proc	
1968/06/18	C031623	0243063	12 AC OF L 1480 R 3 CHART DIST	JONES RICHARD D GD CHILANKO FORKS BC V0L1N0	INR	12.00 AF	Apr 01	Sep 30		
Chilanko River			MR03.C.010	B M					05A CAR - CHILCOTIN	
Chilanko River			MR03.C.010	A M						
1967/10/19	C033500	0277266	30 AC OF L 7265 CHILKO DIST	JAMES VERNON A LORRAINE M CHILANKO ROAD CHILANKO FORKS BC V0L1N0	INR	40.00 AF	Apr 01	Sep 30		AMD UNDER AGREEMENT
Chilanko River			MR03.B.011	D M					05A CAR - CHILCOTIN	
1967/11/02	C033530	0277290	30 AC OF L 12460 R 3 CHART DIST	ALTHEIM A SCHALLENBERG CATTLE CO LTD BOX 60 ALEXIS CREEK BC V0L1A0	IND	40.00 AF	Apr 01	Sep 30		
Chilanko River			MR03.B.012	D M					05A CAR - CHILCOTIN	
1978/03/17	C001150	0242813	15 AC OF PART OF L 941 R 3 CHART DIST LYING W OF HWY 20	LAW WILSON A EVAN BOX 75 CHILANKO FORKS B C V0L1N0	INR	20.00 AF	Apr 01	Sep 30		
Chilanko River			MR03.C.020	J M					05A CAR - CHILCOTIN	
1981/05/05	C063010	0246541	CHNO PROJECT OF LICENSEE WITHIN L 250, 259, 942, 943, 1392, 1407, 1801, 1802, 1806, 1859, 1856 & UNL R 3 CHART DIST	(NICE UNLIMITED (CANADA) 1295 W HASTINGS AVE WILLIAMS LAKE BC V2G3Y1	COMPT	1,960.00 AF	Oct 01	Jun 30		
Chilanko River			MR03.C.020	L M					05A CAR - CHILCOTIN	
Chilanko River			MR03.C.020	K M						

Rivers Register Report Water Licence Information System

Report Requested By : CHOCHA
Date Report Requested : 1996/09/23 15:44
Report Sorted By : Source Gazetted - Priority Date - Licence Number
Selection Criteria
STATE POINT : POINT - 93.C.049 A
AND POINT : 0057812 - Quilchena Creek left at Chilcotin River

Stream Register Report

Water Licence Information System

DATE: 1996/08/22
TIME: 15:44
PAGE: 001

Priority YYYY/MM/DD	Licence Number	File Number	Appurtenancy	Licensee	PUC	Quantity/Units	Term Start	Term End	Licence Comments	Process Status
Source			NR Map	POD RED POD Comments					Proc	
1983/05/12	C101481	5000124	DL 1507 & DL 1508 IR 34	RANGE 3 COAST DIST	ALEXIS CREEK INDIAN BAND 989-710-9206 BOX 89 CHILANKO FORKS BC V0L1H0	IRR	52.00 AF	Apr 01	Jul 15	130 AC FT IMPOUNDED (52 AC X 2.5 FT DEEP)	
Quichon Creek			NR93.C.049	A N						05A CAR - CHILCOTIN	

---------- Total of 1 Licence Reported ----------

Stream Register Report Water Licence Information System

Report Requested By : CROCHA
Date Report Requested : 1996/09/19 15:43
Report Sorted By : Source Gazetted - Priority Date - Licence Number
Selection Criteria
START POINT : P018391 - 93.C.020 A
END POINT : S017603 - Jorgenson Creek right of Palmer Creek

Priority YYYY/MM/DD	Licence Number	File Number	Appurtenancy	Licensee	PUC	Quantity/Units	Term Start	Term End	Licence Comments	Process Status
	Source		WS Map	POD RBD POD Comments					Free	
1974/10/17	C047953	0123084	DCL IN THE VICINITY OF DL 1534 RI CUA BY DIST UPON WHICH A POWERHOUSE IS SITUATED A DL 1232 DL 607 AND DL1095 RI COAST DISTRICT	CHEZACUT RANCH LTD BOX 289 ALEXIS CREEK BC V0L1A0	PSCUA	15.00 CS Jun 01 Dec 31	STOR AT C		67054 JORGENSON CR	
	Jorgenson Creek		WR93.C.010	N N					05A CAR - CHILCOTIN	
1974/10/17	C047954	0123089	STOR FOR C 47053 JORGENSEN CREEK	CHEZACUT RANCH LTD BOX 289 ALEXIS CREEK BC V0L1A0	STOPR	50.0* AF Oct 01 Jun 30	STOR IR CR			
	Jorgenson Creek		WR93.C.060	N N					05A CAR - CHILCOTIN	
1990/05/30	C050583	0166451	110 AC OF L 33 R 3	CHEZACUT RANCH LTD BOX 289 ALEXIS CREEK BC V0L1A0	IRR	110.00 AF Apr 01 Sep 30				
	Jorgenson Creek		WR93.C.030	N N					05A CAR - CHILCOTIN	
1993/05/13	3101420	5000130	L 1431 1434 & 1536 & UCL ALL OF R 3 C	ALEXIS CREEK INDIAN BAND	IRR	90.00 AF Apr 01 Sep 30				APP APPLIC-CLEARED
			GAMY DIST IR #2	989-710-0191	LSTMP	0.00 TF Jun 01 Dec 31				
				BOX 69						
				CHILANKO FORKS BC						
				V0L1H0						
	Jorgenson Creek		WR93.C.030	N N					05A CAR - CHILCOTIN	
1993/05/13	3101431	5000133	L 1444 R 3 COAST DIST	ALEXIS CREEK INDIAN BAND	IRR	90.00 AF Apr 01 Sep 30				APP APPLIC-CLEARED
				989-710-0196	LSTMP	0.00 TF Jun 01 Dec 31				
				BOX 69						
				CHILANKO FORKS BC						
				V0L1H0						
	Jorgenson Creek		WR93.C.020	A N					05A CAR - CHILCOTIN	

Priority YYYY/MM/DD	Licence Number	File Number	Appurtenancy	Licensee	POC	Quantity/Units	Term Start	Term End	Licence Comments	Process Status
Source		WR Map		POD	RED POD Comments				Proc	
1993/06/03	C106759	5001337	AS SET OUT IN CL47053	CHEEACUT RANCH LTD BOX 289 ALEXIS CREEK BC V0L1A0	STOPR	100.00 AF	Oct 01	Jun 30		
Jorgenson Creek		WR93.C.040		S	N				01A CAR - CHILCOTIN	

---------- Total of 6 Licences Reported ----------

Stream Register Report Water Licence Information System

Report Requested By : CROCHA
Date Report Requested : 1996/08/19 15:39
Report Sorted By : Source Gazetted - Priority Date - Licence Number
Selection Criteria
START POINT : H017598 - Puntzi Creek left of Puntzi Lake
END POINT : S017583 - Puntzi Lake on Puntzi Creek

Priority YYYY/MM/DD	Licence File Number	Number	Appurtenancy	Licensee	PUC	Quantity/Units	Term Start	Term End	Licence Comments	Process Status
Source		WR Map	POD	RED POD Comments					Proc	
1951/11/26	C102197	5001175	DL 1699 RANGE 3 COAST	SKANA HOLDINGS LTD 7440 SUNNYMEDE CRESCENT RICHMOND BC V6Y2V8	LAWN	4.00 AF	Apr 01	Sep 30		AMD UNDER AMENDMENT
Puntzi Lake		WR93.C.020	P	H					05A CAR - CHILCOTIN	
1951/11/26	C106817	5001235	L B DL 1623 PLAN 21322 RANGE 3 COAST DISTRICT	BURHARDT DETLEF & GABRIELLE PO BOX 9 CHILANKO FORKS BC V0L1H0	LAWN	4.00 AF	Apr 01	Sep 30		
Puntzi Lake		WR93.C.020	Q	H					05A CAR - CHILCOTIN	
1951/11/26	C105480	5001269	LOT 1 & 2 DL 1625 RG 3 COAST DIST PL 27804	DAVIS BRIAN PUNTZI LAKE RESORT HOLDINGS LTD PO BOX 65 CHILANKO FORKS BC V0L1H0	LAWN	10.00 AF	Apr 01	Sep 30		
Puntzi Lake		WR93.C.020	R	H					05A CAR - CHILCOTIN	
1951/11/26	C107975	5001390	DL 1620 RANGE 3 COAST DISTRICT	WAKASHAN INVESTMENTS LTD. C/O RR3 BOX 10 SOUTH LAKESIDE DR WILLIAMS LAKE BC V2G1K3	LAWN	4.00 AF	Apr 01	Sep 30		
Puntzi Lake		WR93.C.030	Q	H					05A CAR - CHILCOTIN	
1964/05/26	C029375	0256872	UNDERTAKING OF LICENSEE WITHIN CARIBOO DIST & R 3 COAST DIST	WILDLIFE BRANCH 540 BORLAND ST WILLIAMS LAKE BC V2G1R8	CONST	12,000.00 AF	Jan 01	Dec 31		AMD UNDER AMENDMENT
Puntzi Lake		WR93B/SW(4-6)	Q	H					05A CAR - CHILCOTIN	

Priority YYYY/MM/DD	Licence Number	File Number	Appurtenancy	Licensee	PUC	Quantity/Units	Term Start	Term End	Licence Comments	Process Status
1972/04/10	C041201	0309922	UNDERTAKING OF LICENSEE WITHIN L 1600 & UCL R 3 COAST DIST	DUCKS UNLIMITED (CANADA) 1290 S MACKENZIE AVE WILLIAMS LAKE BC V2G3Y1	CONST	300.00 AF	Jan 01	Dec 31	STOR IN ALVIN MARSHES, DICKS, GUNNAR, CAMPBELL & DOT MARSHES, HOURGLASS LK	AND UNDER ASSESSMENT

Source	WR Map	POD	RED	POD Comments	Proc
Puntzi Lake	WR93.C.020	B	N		05A CAR - CHILCOTIN
Alvin Marshes	WR93.C.020	C	N	NO DIVERSION OF WATER AT POD - PT OF STOFOR WATER ORIGIN X 93C/SE(1-N) PUNTZI LK	
Dicks Marsh	WR93.C.020	D	N	NO DIVERSION OF WATER AT POD - PT OF STOFOR WATER ORIGIN X 93C/SE(1-N) PUNTZI LK	
Gunnar Marsh	WR93.C.020	E	N	NO DIVERSION OF WATER AT POD - PT OF STOFOR WATER ORIGIN X 93C/SE(1-N) PUNTZI LK	
Hourglass Lake	WR93.C.020	G	N	NO DIVERSION OF WATER AT POD - PT OF STOFOR WATER ORIGIN X 93C/SE(1-N) PUNTZI LK	
Dot Marsh	WR93.C.020	H	N	NO DIVERSION OF WATER AT POD - POD IS A POINT OF STORAGE FOR WATER ORIGINATING FROM X 93C/SE(1-N) PUNTZI LK	

---------- Total of 6 Licences Reported ----------

Stream Register Report Water Licence Information System

Report Requested By : CROCHA
Date Report Requested : 1996/08/22 15:39
Report Sorted By : Source Gazetted - Priority Date - Licence Number
Selection Criteria
START POINT : FD18394 - 93.C.048 A
END POINT : S017611 - Timothy Creek left of Palmer Creek

Stream Register Report | Water Licence Information System | DATE: 1996/08/22 TIME: 15:39 PAGE: 001

Priority YYYY/MM/DD	Licence Number	File Number	Appurtenancy	Licensee	PUC	Quantity/Units	Term Start	Term End	Licence Comments	Process Status
Source			WR Map	POD	RED POD Comments				Prec	
1983/05/12	C101482	5000125	DL 1502 & DL 1504 RJ COAST DIST IR32	ALEXIS CREEK INDIAN BAND 989-710-8202 BOX 69 CHILANKO FORKS BC V0L1H0	IRR	41.00 AF	Apr 01	Jul 15	BACKFLOOD IRRIGATION MAXIMUM QUANITY OF WATER TO BE IMPOUNDED 82 AC FT MAXIMUM QUANITY TO BE USED FOR IRRIGATION PURPOSE IS 41 AC FT	
Timothy Creek			WR93.C.048	A	N				05A CAR - CHILCOTIN	

---------- Total of 1 Licence Reported ----------

CHICHOUYENILY CREEK NEAR MACKENZIE - STATION NO. 07EE004

ANNUAL EXTREMES OF DISCHARGE AND ANNUAL TOTAL DISCHARGE FOR THE PERIOD OF RECORD

YEAR	MAXIMUM INSTANTANEOUS DISCHARGE (m^3/s)	MAXIMUM DAILY DISCHARGE (m^3/s)	MINIMUM DAILY DISCHARGE (m^3/s)	TOTAL DISCHARGE (dam^3)	YEAR
	---	---	---	---	
	---	15.3 ON MAY 27	0.099B ON MAR 07 *	52 100	1965
	---	19.8 ON JUN 02 *	0.139B ON JAN 30	---	1966
					1967
*	B - ICE CONDITIONS	* - EXTREME RECORDED FOR THE PERIOD OF RECORD		52 100	MEAN

CHILAKO RIVER NEAR PRINCE GEORGE - STATION NO. 08JC005

MONTHLY AND ANNUAL MEAN DISCHARGES IN CUBIC METRES PER SECOND FOR THE PERIOD OF RECORD

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	MEAN	YEAR
1960	---	---	---	---	---	32.0	8.43	3.58	3.36	4.34	3.48	2.41	---	1960
1961	2.41	2.75	5.87	33.1	50.7	11.5	4.67	1.83	1.57	2.48	2.18	4.42	10.4	1961
1962	4.26	3.40	3.55	39.2	38.6	26.2	12.8	6.38	4.03	11.5	16.6	12.8	15.0	1962
1963	9.28	7.44	11.4	41.9	45.0	14.4	6.98	4.40	4.11	4.85	4.20	3.63	13.1	1963
1964	2.80	3.17	4.19	17.7	46.6	48.0	33.9	26.7	17.6	---	---	---	---	1964
1965	---	---	---	---	---	---	7.50	5.03	3.83	4.78	4.42	3.69	---	1965
1966	3.50	3.41	5.52	38.9	52.0	21.2	10.5	4.90	4.22	4.62	6.24	5.41	13.4	1966
1967	4.13	3.82	4.11	20.3	82.8	33.2	7.72	4.48	3.26	4.45	6.00	5.25	14.9	1967
1968	2.92	3.31	7.29	22.5	55.1	28.8	13.5	7.51	5.34	12.0	21.7	8.24	16.0	1968
1969	4.09	3.62	4.35	27.7	25.4	10.4	4.03	2.59	5.69	8.41	10.9	8.84	9.67	1969
1970	4.23	3.37	5.86	22.9	51.4	22.1	5.19	3.71	2.83	3.19	2.60	1.89	10.8	1970
1971	2.15	2.96	3.13	18.4	49.3	15.1	4.16	3.25	3.60	3.80	3.70	10.5	10.5	1971
1972	3.47	3.57	10.8	31.7	84.6	38.6	17.0	7.94	4.50	4.73	9.30	4.28	18.4	1972
1973	4.21	3.11	4.95	21.9	42.1	20.9	7.63	2.87	2.29	4.13	3.39	2.87	9.89	1973
1974	2.69	3.21	4.47	43.3	92.8	33.7	9.70	3.75	2.39	2.47	---	---	---	1974
MEAN	3.85	3.63	5.65	29.2	55.1	25.5	11.0	5.99	4.82	5.38	7.33	5.03	12.9	MEAN

LOCATION - LAT 53 48 32 N LONG 122 59 20 W — DRAINAGE AREA, 3 390 km^2 NATURAL FLOW

CHILAKO RIVER NEAR PRINCE GEORGE - STATION NO. 08JC005

ANNUAL EXTREMES OF DISCHARGE AND ANNUAL TOTAL DISCHARGE FOR THE PERIOD OF RECORD

YEAR	MAXIMUM INSTANTANEOUS DISCHARGE (m^3/s)	MAXIMUM DAILY DISCHARGE (m^3/s)	MINIMUM DAILY DISCHARGE (m^3/s)	TOTAL DISCHARGE (dam^3)	YEAR
1960	---	---	---	---	1960
1961	---	73.9 ON MAY 09	1.32 ON AUG 24 *	329 000	1961
1962	---	56.4 ON APR 21	3.40B ON FEB 01	472 000	1962
1963	---	74.5 ON APR 19	3.00B ON DEC 31	414 000	1963
1964	---	68.5 ON JUN 07	---	---	1964
1965	---	---	---	---	1965
1966	---	78.2 ON MAY 13	2.87B ON MAR 03	421 000	1966
1967	---	95.1 ON MAY 22	2.72B ON DEC 26	499 000	1967
1968	---	68.5 ON MAY 27	2.45B ON JAN 11	506 000	1968
1969	---	36.0 ON APR 13	2.32 ON AUG 08	305 000	1969
1970	---	72.5 ON MAY 19	1.83B ON DEC 20	341 000	1970
1971	---	72.5 ON MAY 22	1.99B ON JAN 01	330 000	1971
1972	---	148 ON MAY 18	1.37B ON JAN 15	583 000	1972
1973	---	84.7 ON MAY 12	1.59 ON SEP 08	312 000	1973
1974	---	167 ON MAY 02 *	---	---	1974
	B - ICE CONDITIONS	* - EXTREME RECORDED FOR THE PERIOD OF RECORD		408 000	MEAN

CHILANKO RIVER NEAR REDSTONE - STATION NO. 08MB004

MONTHLY AND ANNUAL MEAN DISCHARGES IN CUBIC METRES PER SECOND FOR THE PERIOD OF RECORD

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	MEAN	YEAR
1961	---	---	---	---	1.19	0.514	0.507	0.297	0.257	---	---	---	---	1961
1962	---	---	---	---	1.78	1.44	0.976	0.883	0.539	0.731	0.607	0.500	---	1962
1963	0.300	---	---	---	1.62	0.586	0.577	---	---	---	---	---	---	1963
1964	---	---	---	---	2.32	---	---	---	---	---	---	---	---	1964
1965	---	---	---	---	3.04	1.34	1.01	0.809	0.706	0.998	0.836	0.650	---	1965
1966	0.620	0.726	0.822	2.51	1.65	2.14	1.48	1.18	0.619	---	0.905	0.747	---	1966
1967	0.765	0.661	0.606	1.18	1.37	0.954	0.680	0.387	0.394	0.421	0.345	0.282	0.671	1967
1968	0.313	0.371	0.574	0.867	4.84	2.23	1.16	0.768	0.657	0.706	0.557	0.385	1.12	1968
1969	0.346	0.357	0.363	1.47	0.656	0.404	1.31	0.899	0.573	0.738	0.726	0.428	0.691	1969
1970	0.298	0.303	0.287	0.667	0.393	0.510	0.218	0.150	0.221	0.290	0.369	0.460	0.347	1970
1971	0.468	0.499	0.447	1.53	0.755	0.408	0.770	0.297	0.357	---	---	---	---	1971
MEAN	0.444	0.487	0.517	1.37	1.78	1.05	0.869	0.630	0.489	0.647	0.621	0.496	0.707	MEAN

LOCATION - LAT 52 07 30 N LONG 123 41 30 W — DRAINAGE AREA, 1 790 km^2 NATURAL FLOW

CHILANKO RIVER NEAR REDSTONE - STATION NO. 08HB004

ANNUAL EXTREMES OF DISCHARGE AND ANNUAL TOTAL DISCHARGE FOR THE PERIOD OF RECORD

YEAR	MAXIMUM INSTANTANEOUS DISCHARGE (m^3/s)	MAXIMUM DAILY DISCHARGE (m^3/s)	MINIMUM DAILY DISCHARGE (m^3/s)	TOTAL DISCHARGE (dam^3)	YEAR
1961	---	---	---	---	1961
1962	---	---	---	---	1962
1963	---	---	---	---	1963
1964	---	---	---	---	1964
1965	---	---	---	---	1965
1966	---	---	---	---	1966
1967	---	4.93 ON MAY 18	---	---	1967
1968	---	4.02 ON MAY 10	0.275E ON DEC 22	21 100	1968
1969	---	6.23 ON MAY 04 *	0.411E ON JAN 14	21 800	1969
		2.40 ON APR 16	0.561 ON JUN 23		
1970	---	1.95E ON APR 15	0.113 ON AUG 11 *	10 900	1970
1971	---	2.72E ON APR 23	---	---	1971
MEAN				22 300	MEAN

E : ICE CONDITIONS
E : ESTIMATED

* - EXTREME RECORDED FOR THE PERIOD OF RECORD

CHILCOTIN RIVER ABOVE CLUSKO RIVER - STATION NO. 08HB010

MONTHLY AND ANNUAL MEAN DISCHARGES IN CUBIC METRES PER SECOND FOR THE PERIOD OF RECORD

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	MEAN	YEAR
1988	---	---	---	---	6.70	7.29	4.62	4.09	4.10	4.26	---	---	---	1988
1989	---	---	---	---	8.84	6.59	5.82	4.91	4.38	4.21	---	---	---	1989
MEAN	---	---	---	---	7.77	6.84	5.26	4.50	4.24	4.24	---	---	---	MEAN

LOCATION - LAT 52 25 34 N
LONG 124 09 09 W
DRAINAGE AREA, 1 490 km^2
NATURAL FLOW

DATA CONTRIBUTED BY -
BC MINISTRY OF ENVIRONMENT

CHILCOTIN RIVER ABOVE CLUSKO RIVER - STATION NO. 08HB010

ANNUAL EXTREMES OF DISCHARGE AND ANNUAL TOTAL DISCHARGE FOR THE PERIOD OF RECORD

YEAR	MAXIMUM INSTANTANEOUS DISCHARGE (m^3/s)	MAXIMUM DAILY DISCHARGE (m^3/s)	MINIMUM DAILY DISCHARGE (m^3/s)	TOTAL DISCHARGE (dam^3)	YEAR
1988	13.6 AT 14:43 PST ON JUN 09 *	13.4 ON JUN 09 *	---	---	1988
1989	12.8 AT 16:25 PST ON JUN 01	12.4 ON JUN 01	---	---	1989
		* - EXTREME RECORDED FOR THE PERIOD OF RECORD		---	MEAN

CHILCOTIN RIVER BELOW BIG CREEK - STATION NO. 08HB005

MONTHLY AND ANNUAL MEAN DISCHARGES IN CUBIC METRES PER SECOND FOR THE PERIOD OF RECORD

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	MEAN	YEAR
1970	---	---	---	---	---	---	---	---	---	---	21.9	16.6	---	1970
1971	18.6	23.0	28.3	42.4	121	202	206	239	129	64.9	34.3	24.1	87.3	1971
1972	20.4	19.5	23.6	37.0	124	178	150	166	127	50.9	25.3	18.3	70.1	1972
1973	16.7	16.7	16.2	29.9	89.9	143	106	106	107	46.7	25.3	18.3	59.1	1973
1974	21.0	21.4	28.3	43.8	88.3	227	253	253	171	84.7	48.4	34.3	107	1974
1975	27.9	28.6	24.3	33.9	96.5	175	272	182	99.4	63.2	88.7	50.5	92.1	1975
1976	25.3	20.5	19.6	28.1	125	184	194	144	107	63.2	48.4	33.0	74.4	1976
1977	20.3	21.2	21.2	29.6	104	161	212	155	111	58.3	38.7	25.0	69.4	1977
1978	18.5	19.4	20.4	44.0	91.7	192	288	230	110	68.2	39.6	25.4	69.1	1978
1979	17.7	23.6	28.0	32.9	91.4	130	178	211	156	82.9	36.6	23.4	69.1	1979
1980	21.0	20.5	21.1	28.9	73.9	218	252	207	115	78.0	45.9	48.3	84.5	1980
1981	26.4	24.1	24.3	30.9	210	247	245	174	140	69.2	80.3	44.4	107	1981
1982	30.7	30.1	34.6	50.0	88.1	244	244	148	128	84.9	51.3	34.7	109	1982
1983	27.1	28.8	31.5	32.8	58.7	147	201	208	102	171	48.3	37.0	81.8	1983
1984	34.3	28.9	31.5	32.8	58.7	147	201	208	102	171	48.3	37.0	81.8	1984
1985	28.6	25.0	23.7	34.6	72.6	164	194	206	97.3	53.2	27.3	19.0	78.8	1985
1986	19.0	20.1	24.4	33.5	115	212	212	153	117	69.6	46.9	29.8	87.2	1986
1987	21.6	22.9	24.2	42.5	123	226	196	183	112	69.6	46.9	29.8	103	1987
1988	22.1	19.9	22.8	31.9	76.6	139	189	200	111	77.1	51.9	36.3	83.1	1988
1989	20.8	21.1	22.8	33.1	79.7	198	180	221	138	73.1	51.9	36.3	90.8	1989
1990	29.2	24.8	25.4	48.8	97.8	212	274	242	131	74.9	74.2	53.0	108	1990
MEAN	27.6	26.0	27.5	38.6	91.3	194	237	226	127	74.4	48.3	32.2	96.5	MEAN

LOCATION - LAT 51 50 53 N
LONG 122 39 12 W
DRAINAGE AREA, 19 300 km^2
NATURAL FLOW

PUNTLEDGE RIVER NEAR CUMBERLAND - STATION NO. 08HB007

ANNUAL EXTREMES OF DISCHARGE AND ANNUAL TOTAL DISCHARGE FOR THE PERIOD OF RECORD

YEAR	MAXIMUM INSTANTANEOUS DISCHARGE (m^3/s)	MAXIMUM DAILY DISCHARGE (m^3/s)	MINIMUM DAILY DISCHARGE (m^3/s)	TOTAL DISCHARGE (dam^3)	YEAR
1914	---	173 ON OCT 16	6.94 ON AUG 28	1 360 000	1914
1915	---	112 ON OCT 27	5.10 ON SEP 30 *	887 000	1915
1916	---	105 ON MAR 13	8.50 ON OCT 23	946 000	1916
1917	---	101 ON DEC 31	10.5 ON OCT 30	811 000	1917
1918	---	175 ON JAN 03	8.50 ON JUN 24	1 170 000	1918
1919	---	117 ON DEC 27	8.50 ON OCT 26	1 170 000	1919
1920	---	121 ON DEC 04	8.50 ON APR 24	1 010 000	1920
1921	---	129 ON OCT 18	11.3 ON AUG 11	1 410 000	1921
1922	---	109 ON DEC 28	8.50 ON JAN 25	810 000	1922
1923	---	175 ON DEC 18	11.3 ON OCT 05	1 000 000	1923
1924	---	113 ON FEB 01	13.3 ON JUL 02	1 150 000	1924
1925	---	93.7 ON DEC 18	11.3 ON OCT 12	979 000	1925
1926	---	110 ON OCT 17	8.21 ON JUL 24	830 000	1926
1927	---	153 ON JAN 02	9.34 ON DEC 30	1 190 000	1927
1928	---	122 ON JAN 10	9.06 ON JAN 01	1 000 000	1928
1929	---	102 ON DEC 30	5.66 ON MAR 05	672 000	1929
1930	---	102 ON FEB 19	8.21 ON AUG 18	789 000	1930
1931	---	98.3 ON JAN 28	8.78 ON AUG 26	1 020 000	1931
1932	---	91.2 ON FEB 28	8.78 ON SEP 27	982 000	1932
1933	---	66.5 ON NOV 01	11.3 ON SEP 15	1 010 000	1933
1934	---	121 ON NOV 16	8.21 ON OCT 06	1 120 000	1934
1935	---	222 ON FEB 01	8.21 ON SEP 06	840 000	1935
1936	---	79.9 ON MAY 06	8.21 ON FEB 13	672 000	1936
1937	---	148 ON OCT 29	8.78 ON AUG 19	1 130 000	1937
1938	---	60.3 ON NOV 01	9.06 ON AUG 10	872 000	1938
1939	---	240 ON DEC 08	8.50 ON FEB 27	1 250 000	1939
1940	---	148 ON DEC 27	9.49 ON SEP 12	1 080 000	1940
1941	---	253 ON DEC 02 *	8.50 ON AUG 20	1 150 000	1941
1942	---	60.3 ON DEC 21	8.21 ON SEP 11	666 000	1942
1943	---	102 ON APR 21	8.21 ON SEP 20	722 000	1943
1944	---	167 ON JAN 19	8.21 ON MAR 04	738 000	1944
1945	---	114 ON FEB 08	8.50 ON AUG 22	856 000	1945
1946	---	86.9 ON MAY 21	8.21 ON OCT 14	1 010 000	1946
1947	---	106 ON FEB 14	8.78 ON SEP 15	818 000	1947
1948	---	122 ON MAY 29	12.0 ON DEC 27	929 000	1948
1949	---	172 ON NOV 28	9.49 ON JAN 21	819 000	1949
1950	---	126 ON DEC 24	10.2 ON OCT 01	1 080 000	1950
1951	---	69.9 ON NOV 28	8.21 ON SEP 23	736 000	1951
1952	---	118 ON DEC 15	9.06 ON JAN 12	976 000	1952
1953	---	---	---	---	1953
MEAN				967 000	MEAN

* - EXTREME RECORDED FOR THE PERIOD OF RECORD

PUNTZI CREEK ABOVE PUNTZI LAKE - STATION NO. 08MB011

MONTHLY AND ANNUAL MEAN DISCHARGES IN CUBIC METRES PER SECOND FOR THE PERIOD OF RECORD

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	MEAN	YEAR
1988	---	---	---	---	0.024	0.084	0.031	0.016	0.006	0.012	---	---	---	1988
1989	---	---	---	---	0.104	0.104	0.062	0.069	0.047	0.057	---	---	---	1989
1990	---	---	---	0.193	0.100	0.174	0.060	0.016	0.015	0.025	---	---	---	1990
MEAN	---	---	---	0.193	0.076	0.121	0.051	0.034	0.023	0.031	---	---	---	MEAN

LOCATION - LAT 52 12 29 N, LONG 124 04 06 W
DRAINAGE AREA, 508 km^2
REGULATED SINCE 1988
DATA CONTRIBUTED BY - BC MINISTRY OF ENVIRONMENT

PUNTZI CREEK ABOVE PUNTZI LAKE - STATION NO. 08MB011

ANNUAL EXTREMES OF DISCHARGE AND ANNUAL TOTAL DISCHARGE FOR THE PERIOD OF RECORD

YEAR	MAXIMUM INSTANTANEOUS DISCHARGE (m^3/s)	MAXIMUM DAILY DISCHARGE (m^3/s)	MINIMUM DAILY DISCHARGE (m^3/s)	TOTAL DISCHARGE (dam^3)	YEAR
1988	---	---	0.002 ON SEP 02 *	---	1988
1989	---	0.188 ON MAY 14	---	---	1989
1990	---	0.477 ON APR 02 *	---	---	1990
MEAN				---	MEAN

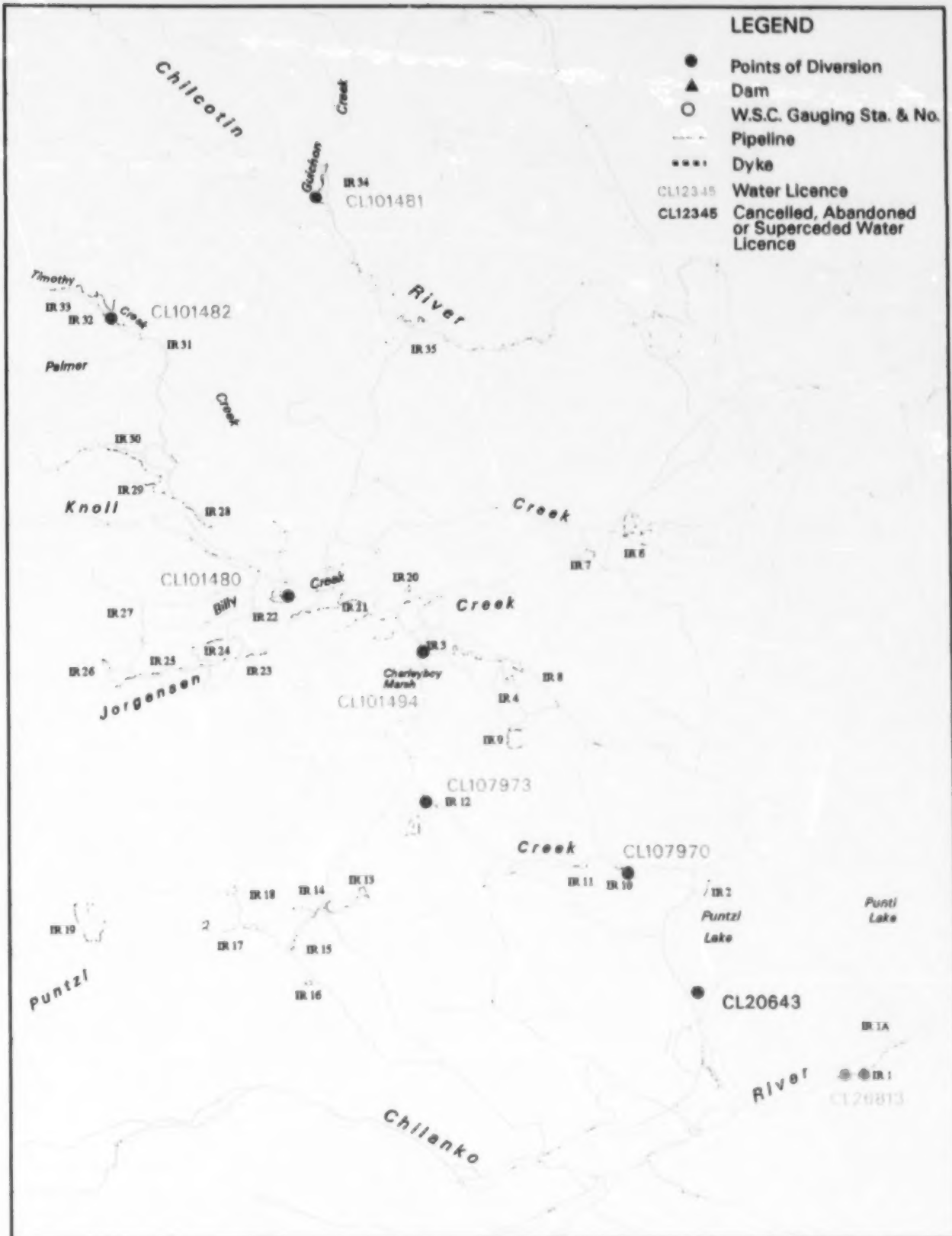
* - EXTREME RECORDED FOR THE PERIOD OF RECORD

QUAIL CREEK NEAR ROSMER - STATION NO. 08NK007

MONTHLY AND ANNUAL MEAN DISCHARGES IN CUBIC METRES PER SECOND FOR THE PERIOD OF RECORD

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	MEAN	YEAR
1927	---	---	---	---	---	0.006	0.006	0.006	0.006	---	---	---	---	1927
1928	---	---	---	0.002	0.001	0.002	0.002	0.001	0.001	---	---	---	---	1928
1929	---	---	---	0.005	0.005	0.003	0.003	0.003	0.003	---	---	---	---	1929
MEAN	---	---	---	0.004	0.003	0.004	0.004	0.003	0.003	---	---	---	---	MEAN

LOCATION - LAT 49 34 14 N, LONG 114 59 24 W
NATURAL FLOW



ALEXIS CREEK FIRST NATION

Scale: 1 : 200,000

Ministry of Environment, Lands & Parks | Date: April 2000 | Environment & Lands Division